EMT-Basic
Pre-Hospital
Treatment Guidelines
3rd Edition

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Introduction

The Pre-hospital Treatment Guidelines were developed to establish standards of care which are consistent throughout the State of South Dakota, and to provide the EMS provider with a quick field reference. Users of these guidelines are assumed to have knowledge of the more detailed and basic patient care principles found in EMS textbooks and literature appropriate to the EMS provider's level of certification. These guidelines are intended to reflect the current treatment guidelines for the EMT. These guidelines are not intended to be absolute treatment doctrines, but rather guidelines which have sufficient flexibility to meet the complex cases presented to the Emergency Medical Technician in the field.

The South Dakota Pre-hospital Treatment Guidelines for the Emergency Medical Technician, Third Edition, was developed and updated by the South Dakota Office of Emergency Medical Services and members of the State Emergency Medical Services Advisory Committee.

These South Dakota Pre-Hospital Treatment Guidelines were developed using current National Highway Traffic Safety Administration guidelines, with reference and assistance provided by the State of Minnesota BLS guidelines and Commonwealth of Kentucky State Protocols and Pre-Hospital Trauma Life Support Guidelines.

South Dakota General Patient Care Guidelines
Table of Contents

August 2010

South Dakota General Patient Care Guidelines

August 2010

All levels of providers should complete an initial, rapid and/or focused assessment on every patient and should use approved necessary skills and treatments in order to maintain a patient's health and well-being.

Initial Assessment

Scene Size-Up

- ✓ Assess scene safety, look for mechanism of injury/nature of illness, number and locations of patients
- ✓ Assess need for proper body substance isolation (BSI)
- ✓ Request additional resources and assistance as needed
- ✓ General impression of the patient
- ✓ Consider cervical spinal precautions
- ✓ Check level of consciousness using AVPU scale
- ✓ Determines life threats or chief complaint

Airway

- ✓ Assess patient for patent airway
- ✓ Open airway using head-tilt, chin-lift or jaw thrust according to nature of incident or call
- ✓ Suction as needed
- ✓ Place oropharyngeal or nasopharyngeal airways as needed

Breathing

- ✓ Assess patient breathing noting rate, rhythm, and quality of respirations
- ✓ Assess lung sounds
- ✓ Apply oxygen as necessary according to patient presentation and/or chief complaint
  - Nasal Cannula 1-6 LPM
  - Non-Rebreather 10-15 LPM
  - Bag-Valve Mask 12-15 LPM

Circulation

- ✓ Assess patient's pulse noting rate, rhythm and quality
- ✓ Look for and control any major/life-threatening bleeds
- ✓ Assess patient's skin color, temperature, condition

History and Vital Signs

- ✓ Obtain pulse, respirations, blood pressure
- ✓ Blood glucose as necessary
- ✓ Gather history using SAMPLE and OPQRST

  - S: Signs/Symptoms
  - A: Allergies
  - M: Medications (Over-the-counter, prescribed, vitamins, etc)
  - L: Last Oral Intake
  - E: Events Leading Up To Event/Injury

  - O: Onset
  - P: Provokes/Provocation
  - Q: Quality
  - R: Radiates/Radiation
  - S: Severity
  - T: Time

Rapid Trauma/Detailed/Focused Assessment

This assessment should be done systematically, placing emphasis on the chief complaint, nature of illness or mechanism of injury presented. Any life-threatening injuries should be treated as found, if not done so in the initial assessment. The standard DCAP-BTLS should be used in the physical exam.

DCAP-BTLS

- D: Deformities
- C: Contusions
- A: Abrasions
- P: Punctures/Penetrations
- B: Burns
- T: Tenderness
- L: Lacerations
- S: Swelling

Head and Eyes

- ✓ Assess for DCAP-BTLS
- ✓ Check for Raccoon Eyes
- ✓ Check pupils for responsiveness, size and equality
- ✓ Check ears for Battle's Signs and cerebrospinal fluid or blood

Neck

- ✓ Assess for DCAP-BTLS
- ✓ Check for tracheal deviation
- ✓ Check for jugular vein distention (JVD)

Chest

- ✓ Assess for DCAP-BTLS
- ✓ Check for paradoxical motion
- ✓ Check for open chest wounds
- ✓ Auscultate lung sounds

Abdomen

- ✓ Assess for DCAP-BTLS
- ✓ Asses all four quadrants for rigidity and distention

Pelvis

- ✓ Assess for DCAP-BTLS
- ✓ Assess for stability
- ✓ Assess genitalia, as needed

Upper/Lower Extremities

- ✓ Assess for DCAP-BTLS
- ✓ Check Circulatory, Motor, Sensation (CMS)
- ✓ Check range of motion, as necessary

Back

- ✓ Assess for DCAP-BTLS

Ongoing Assessment

A patient's airway, breathing, circulation, interventions/treatments and vitals should be checked regularly.

- ✓ Stable patients should have vitals taken every 15 minutes
- ✓ Unstable patients should have vitals taken every 5 minutes

Adult Medical Emergencies

-Abdominal Emergencies
-Allergic Reactions
-Altered Mental Status
-Cardiac Arrest
-Chest Pains
-Congestive Heart Failure/Pulmonary Edema
-Diabetic Emergencies
-Environmental Emergencies
-Obstetrical
-Poisonings/Overdose
-Respiratory Distress
-Seizures
-Strokes

South Dakota Medical Guideline
Abdominal Pain, Non-Trauma
Guide 1005

August 2010

This guideline is to only be used in situations where the patient has no indication or history of trauma. In addition to standard assessment, specific questions should be asked during the patient history.

Abdominal Physical Assessment and History

- ✓ Ask patient to point to area of pain and palpate that region last
- ✓ Gently palpate all four quadrants for tenderness, rebound tenderness, and pulsating masses.
- ✓ Ask patient for history of nausea/vomiting
  - Color, blood tinged, coffee ground
- ✓ Ask patient for history of bowel movement
  - Diarrhea, tarry, bloody
- ✓ Ask patient for history of urine output
  - Painful, color, blood present

EMT

- ✓ Complete patient assessment
- ✓ Give nothing by mouth
- ✓ Consider oxygen, as condition warrants
- ✓ Transport patient in position of comfort
- ✓ Consider ALS Intercept if condition warrants or available

South Dakota Medical Guidelines
Allergic Reaction
Guide 1010

August 2010

Allergic reaction should be suspected when the patient has exposed to an allergen and shows signs and symptoms consistent with an allergic reaction. Allergic reactions can be classified as mild, moderate, and severe.

Moderate Allergic Reaction: Difficulty swallowing, edema, facial swelling, hives, etc., with stable vital signs blood pressure ≥ 90 mmHg

EMT

- ✓ Complete patient assessment
- ✓ Maintain airway and administer O2, as condition warrants
- ✓ Remove allergen, if present
  - Assist patient in administering own inhaler or nebulizer, if necessary
- ✓ Transport patient in position of comfort

Severe Allergic Reaction: Edema, hives, severe dyspnea, wheezing, cyanosis, unstable blood pressure ≤ 90 mmHg

EMT

- ✓ Complete patient assessment
- ✓ Maintain airway and administer O2 via non-rebreather 12-15 LPM
  - Be prepared to assist with ventilations
- ✓ Remove allergen, if present
- ✓ Administer Epinephrine Auto-injector
- ✓ Transport patient in position of comfort
- ✓ Consider calling for ALS intercept, if available
- ✓ Be alert for and treat for shock

Moderate vs. Severe Reactions		
Sign or Symptom	**Moderate Reaction**	**Severe Reaction**
Itching	Yes	Yes
Hives	Yes	Yes
Flushed Skin	Localized	Widespread
Cyanosis	No	Yes
Edema	Mild	Severe
Heart Rate	Normal or slightly increased	Significantly increased
Blood Pressure	Normal	Decreased
Mental Status	Normal	Decreased to unresponsive
Respirations	Normal or slightly increased	Severely increased
Wheezing	No	Present in all lung fields
Stridor	No	Yes

South Dakota Medical Guidelines
Altered Mental Status – Medical
Guide 1015

August 2010

EMT

- ✓ Complete patient assessment
- ✓ Maintain airway
- ✓ Administer O2, as condition warrants
  - Be prepared to assist with ventilations
- ✓ If there is indication of trauma, treat as trauma patient
- ✓ Obtain blood glucose level, if available
- ✓ Transport patient in recovery position
- ✓ Consider ALS intercept, if available
- ✓ Consider possible causes and refer to appropriate guideline

Glascow Coma Scale

Infant		Child/Adult	
Eye Opening			
4	Spontaneously	Spontaneously	4
3	To speech	To command	3
2	To pain	To pain	2
_____ 1	No response	No response	1_____
Best Verbal Response			
5	Coos, babbles	Oriented	5
4	Irritable cries	Confused	4
3	Cries to pain	Inappropriate words	3
2	Moans, grunts	Incomprehensible	2
_____ 1	No response	No response	1_____
Best Motor Response			
6	Spontaneous	Obeys commands	6
5	Localizes pain	Localizes pain	5
4	Withdraws from pain	Withdraws from pain	4
3	Flexion (decorticate)	Flexion (decorticate)	3
2	Extension (decerebrate)	Extension (decerebrate)	2
_____ 1	No response	No response	1_____
_____	Total	Total	_____

South Dakota Medical Guidelines
Cardiac Arrest
Guide 1020

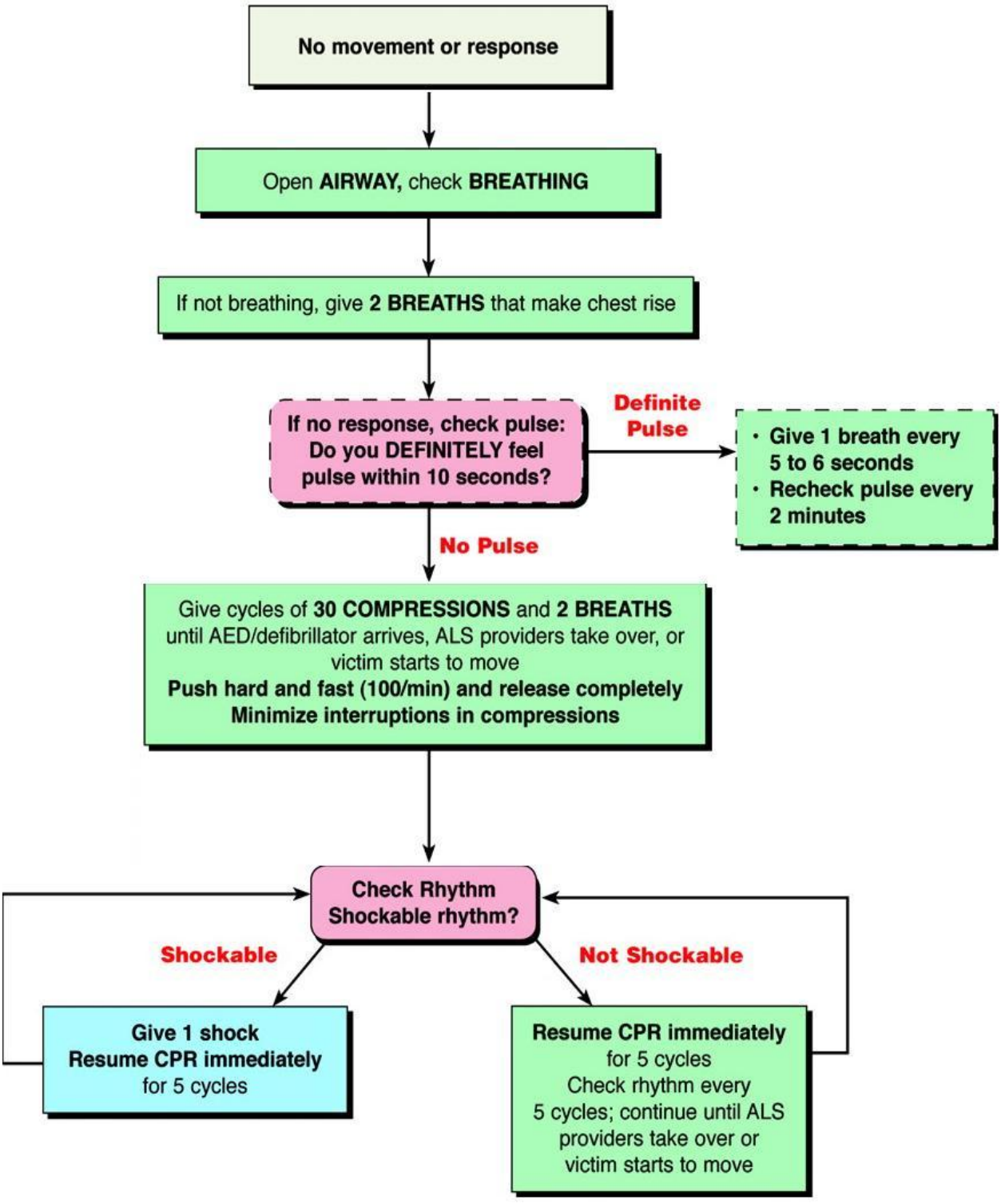
June 2012

EMT

- ✓ Complete patient assessment
- ✓ Follow current American Heart Association CPR/AED guidelines
- ✓ Ensure patient is not touching metal, water and that all medicine patches are removed
- ✓ Move patient to area that allows space for airway, CPR (manual or mechanical) and AED operation
- ✓ Establish and maintain airway utilizing airways and ventilations with O2 @ 15 LPM
  - Bag-valve mask
  - Flow Restricted Ventilation Device
- ✓ Place patient on backboard or other hard surface for patient transport

South Dakota Medical Guidelines
Cardiac Arrest
Guide 1020

August 2010



South Dakota Medical Guidelines
Chest Pains
Guide 1025

June 2012

EMT

- ✓ Complete patient assessment
- ✓ Administer O2, as condition warrants
- ✓ Give patient 2 to 4--81mg aspirin tablets **IF ALLOWED BY YOUR LOCAL PROTOCOLS**
- ✓ Assist in administration patient's own Nitroglycerin (0.4 mg)
  - Ensure systolic BP ≥ 90
  - Repeat dose up to a total of 3 times, one every 5 minutes
  - Do not administer if patient has taken Viagra, Cialis or Levitra or any phosphodiesterase inhibitors within 48 hours.
- ✓ Transport patient in position of comfort
- ✓ Consider calling for ALS intercept, if available

South Dakota Medical Guidelines
Congestive Heart Failure/Pulmonary Edema
Guide 1030

August 2010

Congestive Heart Failure/Pulmonary Edema: Dyspnea, tachycardia, fatigue, crackles, cyanosis, ↓O2 sats, distended neck veins, pedal edema, frothy sputum

EMT

- ✓ Complete patient assessment
- ✓ Place patient in sitting or upright position
- ✓ Allow legs to drop/hang over edge of stretcher, if possible
- ✓ Administer O2, as condition warrants
- ✓ Consider ALS intercept, if available

South Dakota Medical Guidelines
Diabetic Emergencies
Guide 1035

August 2010

Hypoglycemia: Altered mental status, pale, diaphoretic, may appear intoxicated, usually missed meal, usually glucose level < 70 mg/dl

EMT

- ✓ Complete patient assessment
- ✓ Consider O2 administration, as situation warrants
- ✓ Obtain blood glucose level, if available
- ✓ Administer 15-25 grams oral glucose (1 tube)
  - Patient is symptomatic
  - Patient is able to swallow
- ✓ Transport patient in position of comfort or recovery position to protect airway
- ✓ Consider ALS intercept, if available

Hyperglycemia: Altered mental status, warm, dry skin, acetone breath, usually missed insulin dose, usually glucose level > 350 mg/dl

EMT

- ✓ Complete patient assessment
- ✓ Obtain blood glucose level, if available
- ✓ Administer O2, as condition warrants
- ✓ Transport patient in position of comfort or recovery position to protect airway
- ✓ Consider ALS intercept, if available

South Dakota Medical Guidelines
Diabetic Emergencies
Guide 1035

August 2010

Signs and Symptoms	Diabetic Coma (Ketoacidosis)	Insulin Shock (Low Blood Sugar)
Appearance	Extremely ill	Very weak
Skin	Red and dry	Pale and wet
Mouth	Dry	Drooling
Thirst	Intense	Absent
Hunger	Absent	Intense
Respiratory	Exaggerated air hunger (Kussmaul's respirations)	Normal - shallow
Breath Odor	Acetone (sweet)	Normal
Blood Pressure	Low	Normal
Pulse	Rapid	Normal or rapid
Mental State	Restless, decreasing level of consciousness	Apathy, irritability, decreasing level of consciousness
Tremors	Absent	Frequent
Onset	Gradual, over hours or days	Acute, over minutes
Rate of Improvement	Gradual: 6-12 hours following administration of insulin	Immediate: within minutes of administering glucose

South Dakota Medical Guidelines
Heat Emergencies
Guide 1040

August 2010

Heat Exhaustion & Heat Cramps: Severe muscle cramps, weak, pale, diaphoretic skin, fatigue, headache, dizziness, nausea/vomiting

EMT

- ✓ Complete patient assessment
- ✓ Remove patient from heat source and place in cool environment
- ✓ Cool patient with moist towels
- ✓ Apply cold packs to neck, groin and armpits (avoid direct skin contact)
- ✓ Consider O2, as condition warrants

Heat Stroke: Hot and dry or moist skin, weakness, little or no perspiration, altered mental status, dilated pupils, possible seizure

EMT

- ✓ Complete patient assessment
- ✓ Remove patient from heat source and place in cool environment
- ✓ Remove clothing as necessary and practical
- ✓ Administer O2, as condition warrants
- ✓ Began cooling patient
  - Pour cool water over patient
    Place cold packs in groin, side of neck, armpits, and behind knee (avoid direct skin contact)
  - Fan aggressively
  - If shivering occurs, discontinue active cooling
- ✓ Consider ALS intercept, if available

South Dakota Medical Guidelines
Cold Emergencies
Guide 1045

August 2010

General Hypothermia

EMT

- ✓ Complete patient assessment
- ✓ Handle patient carefully
- ✓ Prevent further heat loss
  - Remove patient from the environment
  - Remove any wet clothing
  - Apply heat packs to neck, armpits, chest and groin
  - Apply oxygen as condition warrants
  - Cover patient
  - Keep ambulance as warm as possible
- ✓ Transport

Core Body Temperature		Symptoms
99°F-96°F	37.0°C-35.5°C	Shivering.
95°F-91°F	35.5°C-32.7°C	Intense shivering, difficulty speaking.
90°F-86°F	32.0°C-30.0°C	Shivering decreases and is replaced by strong muscular rigidity. Muscle coordination is affected and erratic or jerky movements are produced. Thinking is less clear, general comprehension is dulled, possible total amnesia. Patient generally is able to maintain the appearance of psychological contact with surroundings.
85°F-81°F	29.4°C-27.2°C	Patient becomes irrational, loses contact with environment, and drifts into stuporous state. Muscular rigidity continues. Pulse and respirations are slow and cardiac.
80°F-87°F	26.6°C-20.5°C	Patient loses consciousness and does not respond to spoken words. Most reflexes cease to function. Heartbeat slows further before cardiac arrest occurs.

South Dakota Medical Guidelines
Frostbite & Frozen Emergencies
Guide 1050

August 2010

Frostbite: Loss of sensation to the area, skin is soft, but cold to touch and normal skin color does not return after palpation. The skin may begin to turn waxy gray or yellow color. As area thaws, patient may report tingling sensation to the area.

EMT

- ✓ Complete patient assessment
- ✓ Continue treatment of hypothermia and/or other injuries/medical conditions
- ✓ Protect frostbite injury from movement
- ✓ Handle gently and remove jewelry, clothing, etc. from the affected area or extremity
- ✓ Do not rub or allow friction to the injury
- ✓ Do not allow patient to walk
- ✓ Do not thaw the frostbite injury
- ✓ Transport

Frozen: The skin is white and waxy and area will be firm to completely solid, frozen feeling. Swelling with blisters may be present. As area thaws, it may become blotchy or mottled, with colors from white to purple to grayish-blue.

EMT

- ✓ Complete patient assessment
- ✓ Continue treatment of hypothermia and/or other injuries/medical conditions
- ✓ Protect frozen injury from movement
- ✓ Handle gently and remove jewelry, clothing, etc. from the affected area or extremity
- ✓ Do not rub or allow friction to the injury
- ✓ Cover injury with dressings or dry clothing
- ✓ Do not allow patient to walk
- ✓ Do not thaw the frozen injury
- ✓ Transport

South Dakota Medical Guidelines
Obstetrical and Gynecological Emergencies-Normal Delivery
Guide 1055

August 2010

EMT

- ✓ Complete patient assessment
- ✓ Administer O2 as condition warrants
- ✓ Gather specific information
  - Length of pregnancy
  - Number of previous pregnancies
  - Number of live births
  - Last menstrual period
  - Number of expected babies
  - Drug/alcohol use
  - Estimated due date
- ✓ Inspect for crowning, if present, prepare for delivery
  - Support head with one hand to prevent explosive delivery
  - Break amniotic sac if it has not already done so
  - Have mother stop pushing
  - Ensure umbilical cord is not around the neck
  - Suction the infant's oral airway
  - Suction the infant's nasal airway
  - Have mother continue pushing
  - Once infant delivered and umbilical cord stops pulsating, cut umbilical cord and dry infant
  - Record APGAR score at 1 and 5 minutes, treat accordingly

Assessment	O Points	1 Point	2 Points
Appearance (Skin Color)	Blue, pale	Body: pink Extremities: blue	Fully pink
Pulse Rate	Absent	Less than 100	More than 100
Grimace (Reflex Irritability When Feet Stimulated or suctioned)	No response	Some motion, facial grimace	Active motion/Cough, sneeze or cry
Activity (Muscle Tone)	Limp, No Movement	Some flexion of extremities	Active motion
Respiratory Effort	Absent	Weak cry – Slow or irregular breathing	Strong cry – good breathing

- APGAR scores should be taken one and five minutes after birth.
- Infants with a score of 7-10 usually require supportive care only.
- Scores of 4-6 indicate moderate depression. (O2, stimulation)
- Infants with scores less than 4 require aggressive resuscitation**.** (O2 per BVM, possible CPR)

South Dakota Medical Guidelines
Obstetrical and Gynecological Emergencies-Breech Birth
Guide 1060

August 2010

EMT

- ✓ Complete patient assessment
- ✓ Administer O2 as condition warrants
- ✓ Gather specific information
  - Length of pregnancy
  - Number of previous pregnancies
  - Number of live births
  - Last menstrual period
  - Number of expected babies
  - Drug/alcohol use
  - Estimated due date
- ✓ If breech birth is present and delivery is unavoidable
  - Position mother with buttocks at edge of surface or bed
  - Have her hold her legs in a flexed position
  - As infant delivers, do not pull, but support the baby
  - If head cannot be delivered, insert fingers and form a "V" with fingers between baby's mouth and nose
  - Transport as soon as possible.

South Dakota Medical Guidelines
Obstetrical and Gynecological Emergencies-Prolapsed Cord
Guide 1060

August 2010

EMT

- ✓ Complete patient assessment
- ✓ Administer O2 as condition warrants
- ✓ Gather specific information
  - Length of pregnancy
  - Number of previous pregnancies
  - Number of live births
  - Last menstrual period
  - Number of expected babies
  - Drug/alcohol use
  - Estimated due date
- ✓ If prolapsed cord is present
  - Position mother with her head down in a "knee-chest" position or place pillows under buttocks
  - Insert sterile, gloved had into the vagina and gently push the presenting part away from pulsating cord.
  - Cover the umbilical cord with a sterile dressing moistened with sterile saline solution.
  - Transport as soon as possible

South Dakota Medical Guidelines
Poisoning and Overdose
Guide 1065

August 2010

Inhaled Poisons

EMT

- ✓ Remove patient from environment, maintaining your own safety
- ✓ Complete patient assessment
- ✓ Maintain airway if patient has altered level of consciousness
- ✓ Administer O2, as condition warrants
- ✓ Contact Poison Control: 1-800-222-1222, for assistance if needed
- ✓ Bring containers, bottles, labels about poison to the facility, as appropriate
- ✓ Transport patient in position of comfort or recovery position

Ingested Poisons/Overdose

EMT

- ✓ Complete patient assessment
- ✓ Maintain airway if patient has altered level of consciousness
- ✓ Administer O2, as condition warrants.
- ✓ Review substance ingested and consider Activated Charcoal (25-50 grams)
  - Do not use if acid or alkali ingested (hydrochloric acid, bleach, ammonia)
  - Contact Poison Control: 1-800-222-1222, for assistance if needed
- ✓ Transport containers, bottles, labels with ingested substance information
- ✓ Transport patient in position of comfort or recovery position

South Dakota Medical Guidelines
Poisoning and Overdose
Guide 1065

August 2010

Injected Poisons/Overdose

EMT

- ✓ Complete patient assessment
- ✓ Maintain airway if patient has altered level of consciousness
- ✓ Administer O2, as condition warrants
- ✓ Remove stinger, if present, by scraping against it
- ✓ Remove constricting jewelry or objects
- ✓ Lower site below level of heart
- ✓ If injection results in allergic reaction, treat accordingly to allergic reaction guideline
- ✓ Contact Poison Control: 1-800-222-1222, for assistance if needed
- ✓ Transport patient in position of comfort or recovery position

Absorbed Poisons

EMT

- ✓ Remove patient from further exposure, maintaining your own safety
- ✓ Complete patient assessment
- ✓ Maintain airway if patient has altered level of consciousness
- ✓ Administer O2, as condition warrants
- ✓ Remove any clothing and decontaminate
  - Brush off any dry chemicals or solid toxins, irrigate for 20 minutes
  - If eyes are involved, irrigate for at least 20 minutes, with water running away from the unaffected eye
- ✓ Contact Poison Control: 1-800-222-1222, for assistance if needed
- ✓ Transport patient in position of comfort or recovery position

South Dakota Medical Guidelines
Respiratory Distress
Guide 1070

August 2010

EMT

- ✓ Complete patient assessment
- ✓ Maintain airway and administer O2, as condition warrants
- ✓ Assist patient with own inhaler
- ✓ Consider calling for ALS intercept if available
- ✓ Transport patient in position of comfort
- ✓ Be prepared to treat for respiratory failure

Differentiating Respiratory Diseases				
	Asthma	**Bronchitis**	**Emphysema**	**Pneumonia**
Lung Sounds	Wheezes, mostly expiratory	Rhonchi, wheezing	Wheezes	Rales, rhonchi
Onset	Usually sudden	Acute: Rapid Chronic: Varies	Exacerbations sudden	Gradual
Cough	Dry, sometimes thick, white mucus	Productive yellow, green, light brown	Dry	Productive yellow, green, light brown
Fever	None	Acute: Elevated Chronic: None	None	Elevated

South Dakota Medical Guidelines
Seizures
Guide 1075

August 2010

EMT

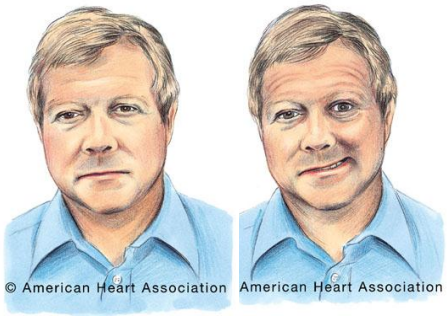
- ✓ Complete patient assessment
- ✓ Protect patient from harming self
- ✓ Administer oxygen as condition warrants
  - Maintain patient's airway post-seizure as necessary
- ✓ Obtain blood glucose level, if available
- ✓ Treat for additional medical or trauma conditions that may have caused or resulted from the seizure
- ✓ Transport in position of comfort or recovery position
- ✓ Consider ALS intercept, if available

South Dakota Medical Guidelines
Strokes and Transient Ischemic Attacks
Guide 1080

August 2010

EMT

- ✓ Complete patient assessment
- ✓ Maintain airway
- ✓ Administer O2, as condition warrants
- ✓ Obtain blood glucose level, if available
- ✓ Transport patient position of comfort or recovery position
- ✓ Consider ALS intercept, if available



Normal Abnormal

Facial Droop
Have patient smile or show teeth

Normal
Both sides of face move equally

Abnormal
One side of face does not move or "droops"

Normal Abnormal

Arm Drift
Have patient close eyes and hold arms straight out for 10 second

Normal
Both arms move the same or both arms do not move at all

Abnormal
One arm does not move or one arm drifts down

Speech
Have patient say "You can't teach an old dog new tricks."

Normal
Patient uses correct words with no slurring

Abnormal
Patient slurs words, uses the wrong words or is unable to speak

Adult Trauma Emergencies

-Abdominal Trauma
-Amputations, Bleeding and Shock
-Burns
-Chest Trauma
-Drowning and Near-Drowning
-Extremity Trauma
-Head Trauma
-Spinal Injuries
-Triage: START/JumpSTART

South Dakota Trauma Guidelines
Abdominal Trauma
Guide 2005

August 2010

EMT

- ✓ Complete patient assessment
- ✓ Maintain airway as necessary
- ✓ Administer O2, as condition warrants
- ✓ Maintain c-spine precautions as necessary
- ✓ Evisceration should be treated by covering with saline moistened dressing
- ✓ Immobilize any impaled objects in place
- ✓ Be alert for and treat for shock
- ✓ Transport patient, in position of comfort if situation allows
- ✓ Consider ALS intercept if available

South Dakota Trauma Guidelines
Bleeding, Shock and Amputations
Guide 2010

August 2010

EMT

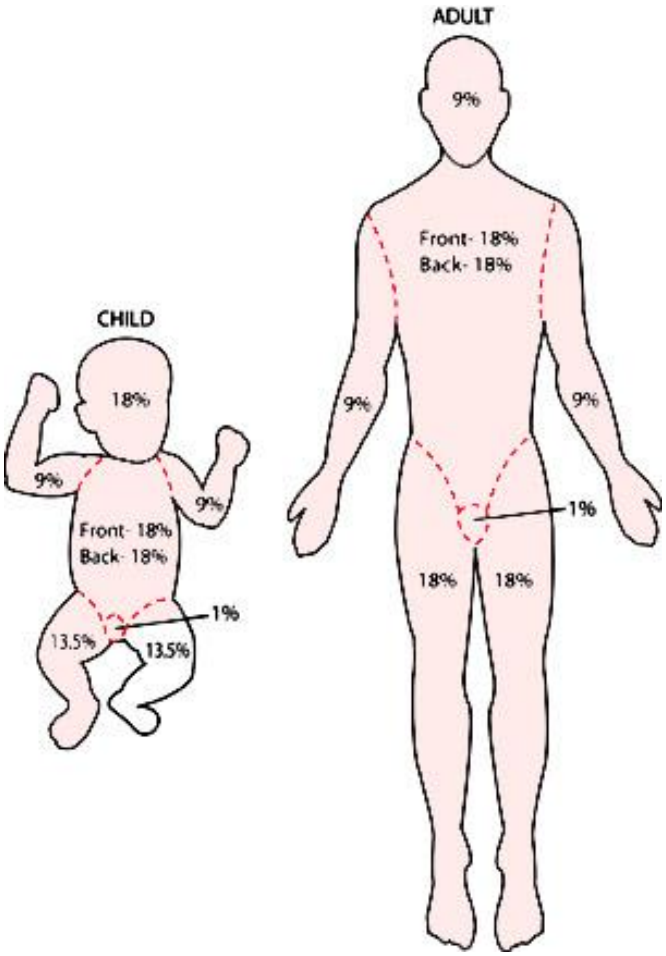
- ✓ Complete patient assessment
- ✓ Maintain airway
- ✓ Administer O2, as condition warrants
- ✓ Control severe bleeding with direct pressure, if unsuccessful, apply tourniquet
- ✓ In the event of amputation, treat for major bleed in addition:
  - Cover stump with sterile dressing
  - Flush gross contamination out with saline
  - Place part in sterile, saline moistened gauze
  - Place in bag and place on water and ice, without freezing part
- ✓ Keep patient warm
- ✓ Consider use of PASG
- ✓ Transport patient immediately if bleeding uncontrolled or signs of shock present
- ✓ Consider ALS intercept, if available

South Dakota Trauma Guidelines
Burns – Thermal
Guide 2015

August 2010

EMT

- ✓ Complete patient assessment
- ✓ Maintain airway
- ✓ Administer O2, as condition warrants
- ✓ Stop burning process
  - Flush with saline or sterile water for one (1) minute after burning stopped
  - Remove all jewelry and clothing from the burn area
  - Cover burns with sterile dry dressings
- ✓ Treat for other injuries that may be present
- ✓ Transport patient
- ✓ Consider ALS intercept, if available



South Dakota Trauma Guidelines
Burns – Chemical
Guide 2015

August 2010

EMT

- ✓ Ensure you are not contaminated
- ✓ Complete patient assessment
- ✓ Maintain airway
- ✓ Administer O2, as condition warrants
- ✓ Remove clothing and jewelry, flush skin with water or saline for at least 10 minutes
- ✓ If contaminant is dry powder, brush off BEFORE flushing
- ✓ Treat for other injuries that may be present
- ✓ Apply sterile dressings or burn sheet to burn area
- ✓ Transport patient
- ✓ Consider ALS intercept, if available

South Dakota Trauma Guidelines
Burns – Electrical
Guide 2015

August 2010

EMT

- ✓ Eliminate electrical contact or source
- ✓ Complete patient assessment
- ✓ Maintain airway
- ✓ Administer O2, as condition warrants
- ✓ Check for entry and exit wounds
- ✓ Treat for other injuries that may be present, watch for cardiac arrest
- ✓ Apply sterile dressings or burn sheet to burn area
- ✓ Transport patient
- ✓ Consider ALS intercept, if available

South Dakota Trauma Guidelines
Chest Trauma
Guide 2020

August 2010

EMT

- ✓ Complete patient assessment
- ✓ Maintain airway as necessary
- ✓ Administer O2, as condition warrants
- ✓ Treat flail chest/paradoxical motion with bulky dressing
- ✓ Treat open chest wound/sucking chest wound with occlusive dressing and flutter valve
- ✓ Maintain c-spine precautions
- ✓ Impaled objects should be stabilized in place
- ✓ Transport patient
- ✓ Consider ALS intercept if available

Comparison of Pneumothorax, Hemothorax and Pericardial Tamponade

Signs/Symptoms	Tension Pneumothorax	Hemothorax	Pericardial Tamponade
Presenting Symptoms	Difficulty breathing and then shock	Shock, then difficulty breathing	Narrowing pulse pressure, then shock
Neck Veins	Distended	Flat	Distended
Breath Sounds	Decreased or absent on side of injury	Decreased or absent on side of injury	Bilateral and clear
Percussion of Chest	Hyperresonant	Dull	Normal Resonance
Tracheal Deviation	Away from side of injury	Usually not present	Not present

South Dakota Trauma Guidelines
Drowning and Near Drowning
Guide 2025

August 2010

Note that victims in cold water (below 68°F) can sometimes be resuscitated after 30 minutes or more in cardiac arrest

EMT

- ✓ Complete patient assessment
  - If hypothermic, check breathing and pulse for 30-45 seconds
  - Note cleanliness of water, length of submersion, and water temperature
- ✓ Maintain airway as necessary with O2 @ 10-15 LPM
- ✓ Treat for other injuries that may be present
- ✓ Transport patient
- ✓ Consider ALS intercept, if available

South Dakota Trauma Guidelines
Extremity Injuries – Fractures, Dislocations, Sprains
Guide 2030

August 2010

EMT

- ✓ Complete patient assessment
- ✓ Maintain airway as necessary
- ✓ Maintain c-spine precautions as necessary
- ✓ Splint extremity in position of function, unless distal pulses are absent
  - If distal pulse absent, attempt to straighten by applying gentle traction
- ✓ Splint joints in the position found
- ✓ Apply cold packs to injured area to assist in controlling swelling
- ✓ Transport patient, in position of comfort if situation allows
- ✓ Consider ALS intercept, if necessary

South Dakota Trauma Guidelines
Head Trauma
Guide 2035

August 2010

EMT

- ✓ Complete patient assessment
- ✓ Maintain airway as necessary
- ✓ Administer O2, as condition warrants
- ✓ Consider c-spine precautions as necessary
- ✓ Transport patient

Comparison of Vital Signs in Shock and Head Injury		
Vital Signs	**Shock**	**Head Injury**
Blood Pressure	May be Decreased	May be Increased
Pulse	May be Increased	May be Decreased
Respiration	May be Increased	May be Decreased
Level of Consciousness	May be Decreased	May be Decreased

Glascow Coma Scale

Infant		**Child/Adult**	
Eye Opening			
4	Spontaneously	Spontaneously	4
3	To speech	To command	3
2	To pain	To pain	2
_____ 1	No response	No response	1_____
Best Verbal Response			
5	Coos, babbles	Oriented	5
4	Irritable cries	Confused	4
3	Cries to pain	Inappropriate words	3
2	Moans, grunts	Incomprehensible	2
_____ 1	No response	No response	1_____
Best Motor Response			
6	Spontaneous	Obeys commands	6
5	Localizes pain	Localizes pain	5
4	Withdraws from pain	Withdraws from pain	4
3	Flexion (decorticate)	Flexion (decorticate)	3
2	Extension (decerebrate)	Extension (decerebrate)	2
_____ 1	No response	No response	1_____
_____	Total	Total	_____

South Dakota Trauma Guidelines
Sexual Assault
Guide 2040

August 2010

EMT

- ✓ Protect and preserve scene and evidence in cooperation with law enforcement
- ✓ If possible and appropriate, crew member of same sex may be better for patient
- ✓ Complete patient assessment
- ✓ Do not allow patient to bathe, douche, clean fingernails or wounds, brush teeth, defecate, urinate or change clothes or place clothes in a paper bag and seal, if possible
- ✓ Treat for other injuries as indicated and apply O2 as condition warrants
- ✓ Transport patient

South Dakota Trauma Guidelines
Spinal Injuries
Guide 2045

August 2010

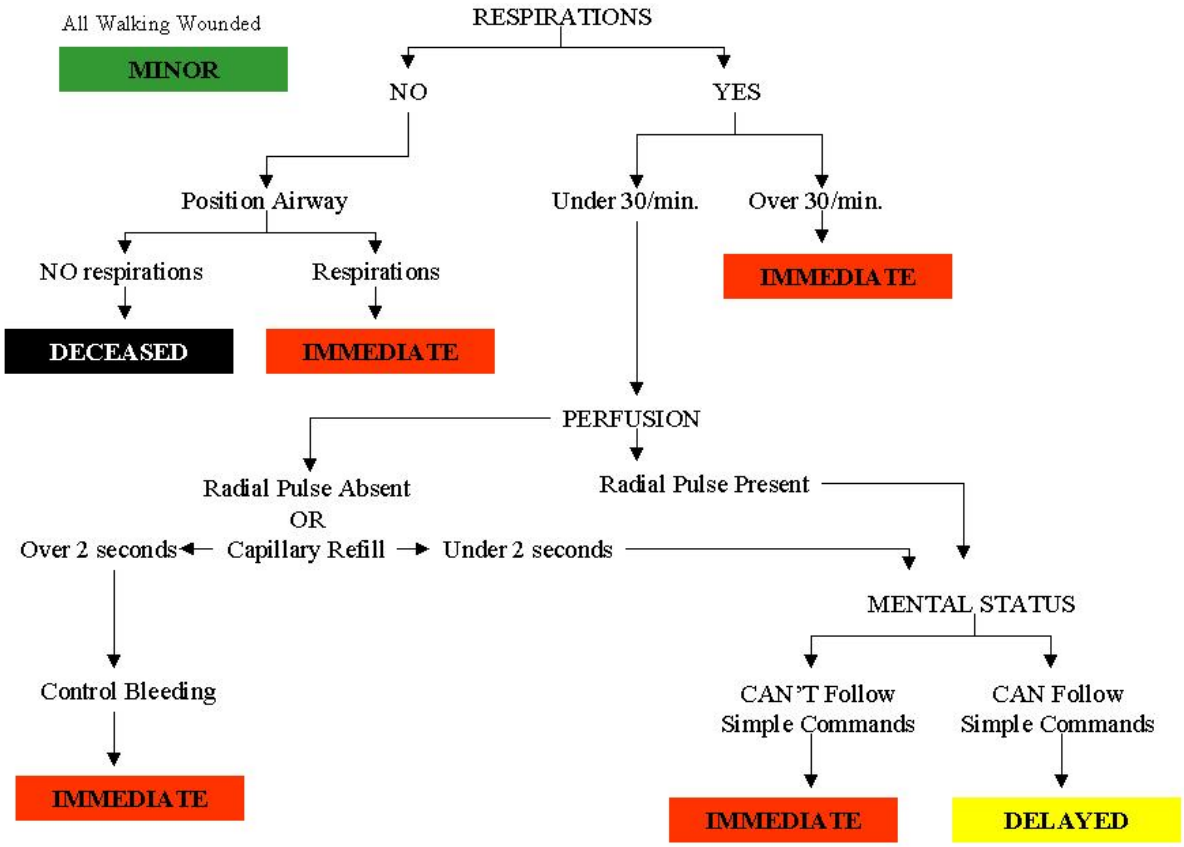
EMT

- ✓ Place head into proper neutral alignment
  - Stop if resistance is noted
  - Stop if neck muscle spasm present
  - Stop if patient has increased pain
  - Stop if there is compromise of airway
  - Stop if there is increase in neurologic deficit (numbness, tingling, etc)
- ✓ Complete patient assessment
- ✓ Apply properly fitting cervical collar
- ✓ Place patient on proper immobilization device (KED, backboard, short board, etc)
- ✓ Immobilize patient torso to device
- ✓ Pad as necessary to keep spine in neutral position
- ✓ Immobilize head to device
- ✓ Immobilize legs after torso secured to backboard
- ✓ Transport patient

South Dakota Trauma Guidelines
START Triage
Guide 2050

August 2010

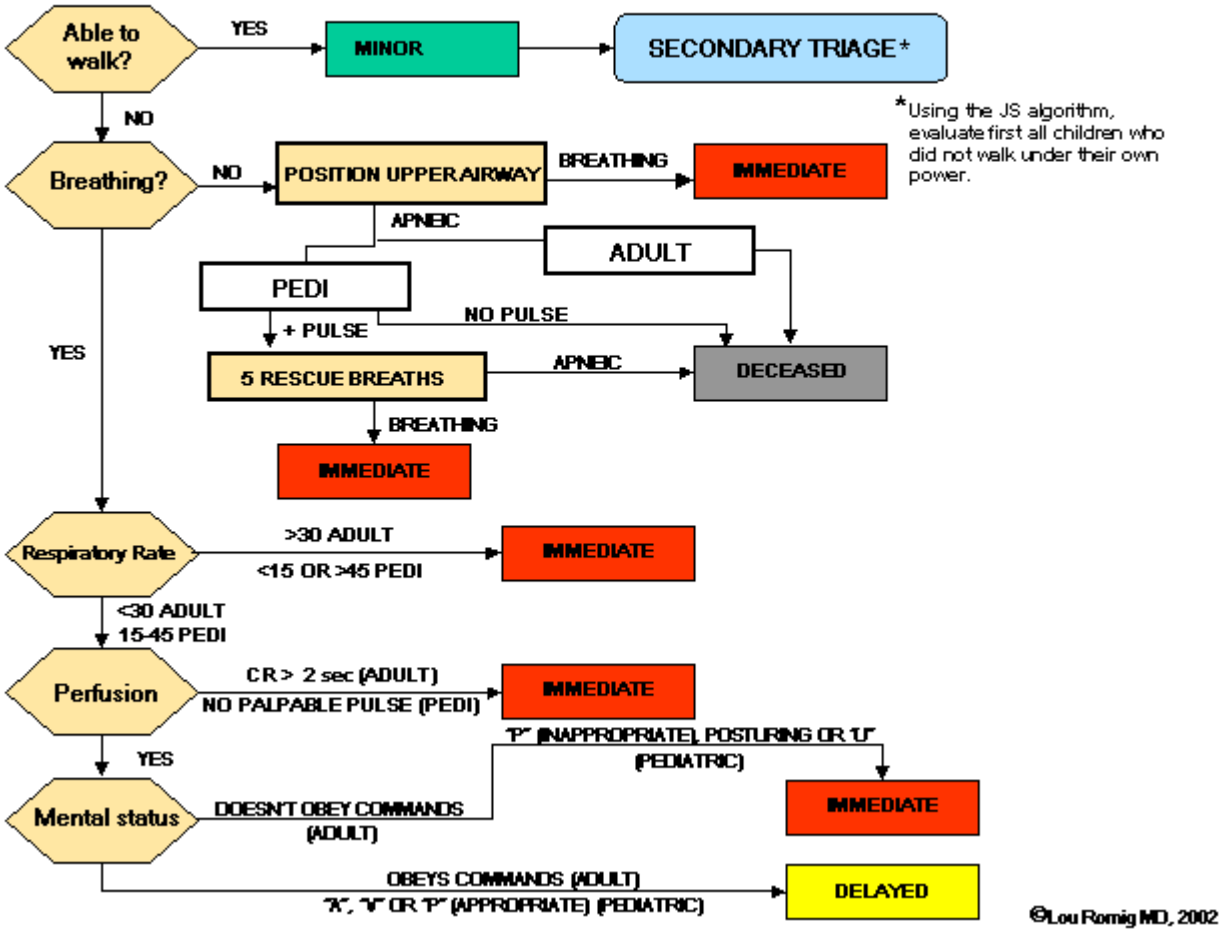
The concept of triage is simply a method of quickly identifying victims who have immediately life-threatening injuries AND who have the best chance of surviving so that when additional rescuers arrive on scene, they are directed first to those patients.



South Dakota Trauma Guidelines
START/JumpSTART Triage
Guide 2055

August 2010

Combined START/JumpSTART Triage Algorithm



Pediatric Emergencies

-General Assessment
-Allergic Reactions
-Altered Mental Status
-Breathing Difficulty
-Burns
-Cardiac Arrest
-Child Abuse
-Diabetic Emergencies
-Drowning and Near Drowning
-Environmental Emergencies
-Newborn Resuscitation
-Poisonings/Overdose
-Seizures
-Special Needs Children
-Sudden Infant Death Syndrome
-Triage: JumpSTART

South Dakota General Patient Guidelines
General Pediatric Assessment
Guide 3005

August 2010

Age limits for pediatric guidelines must be flexible. It is recognized that the exact age of a patient is not always known. Use of a length based resuscitation tape is recommended to assist in determination of appropriate equipment size and vital signs.

Initial Assessment

Scene Size-Up

- ✓ Assess scene safety, look for mechanism of injury/nature of illness, number and locations of patients
- ✓ Assess need for proper body substance isolation (BSI)
- ✓ Request additional resources and assistance as needed
- ✓ Form general impression of the patient using Pediatric Assessment Triangle (PAT)
- ✓ Check level of consciousness using AVPU scale
- ✓ Consider cervical spinal precautions

Airway

- ✓ Assess patient for patent airway
- ✓ Open airway using head-tilt, chin-lift or jaw thrust according to nature of incident or call
- ✓ Suction as needed
- ✓ Place oropharyngeal or nasopharyngeal airways as needed
- ✓ Consider placing pad under the infant/child's should to aid in airway positioning

Breathing

- ✓ Assess patient breathing noting rate, rhythm, and quality of respirations
- ✓ Assess lung sounds
- ✓ Apply oxygen as necessary according to patient presentation and/or chief complaint
  - Nasal Cannula 1-6 LPM
  - Non-Rebreather 10-15 LPM
  - Bag-Valve Mask 12-15 LPM

Pediatric Assessment Triangle

Circulation

- ✓ Assess patient's pulse noting rate, rhythm and quality
- ✓ Look for and control any major/life-threat bleeds
- ✓ Assess patient's skin color, temperature, condition

History and Vital Signs

- ✓ Obtain pulse, respirations, blood pressure
- ✓ Blood glucose as necessary
- ✓ Gather history using SAMPLE and OPQRST

  - S: Signs/Symptoms
  - A: Allergies
  - M: Medications (Over-the-counter, prescribed, vitamins, etc)
  - L: Last Oral Intake
  - E: Events Leading Up To Event/Injury

  - O: Onset
  - P: Provokes/Provocation
  - Q: Quality
  - R: Radiates/Radiation
  - S: Severity
  - T: Time

Rapid Trauma/Detailed/Focused Assessment (Should be done toe-to-head if possible)

This assessment should be done systematically, placing emphasis on the chief complaint, nature of illness or mechanism of injury presented. Any life-threatening injuries should be treated as found, if not done so in initial assessment. The standard DCAP-BTLS should be used in physical exam.

DCAP-BTLS

- D: Deformities
- C: Contusions
- A: Abrasions
- P: Punctures/Penetrations
- B: Burns
- T: Tenderness
- L: Lacerations
- S: Swelling

Head and Eyes

- ✓ Assess for DCAP-BTLS
- ✓ Check for Raccoon Eyes
- ✓ Check pupils for responsiveness, size and equality
- ✓ Check ears for Battle's Signs and cerebrospinal fluid or blood

Neck

- ✓ Assess for DCAP-BTLS
- ✓ Check for tracheal deviation
- ✓ Check for jugular vein distention (JVD)

Chest

- ✓ Assess for DCAP-BTLS
- ✓ Check for paradoxical motion
- ✓ Check for open chest wounds
- ✓ Auscultate lung sounds

Abdomen

- ✓ Assess for DCAP-BTLS
- ✓ Asses all four quadrants for rigidity and distention

Pelvis

- ✓ Assess for DCAP-BTLS
- ✓ Assess for stability
- ✓ Assess genitalia as needed

Upper/Lower Extremities

- ✓ Assess for DCAP-BTLS
- ✓ Check Circulatory, Motor, Sensation (CMS)
- ✓ Check range of motion, as necessary

Back

- ✓ Assess for DCAP-BTLS

Ongoing Assessment

A patient's airway, breathing, circulation, interventions/treatments and vitals should be checked regularly.

- ✓ Stable patients should have vitals taken every 15 minutes
- ✓ Unstable patients should have vitals taken every 5 minutes

South Dakota General Patient Guidelines
General Pediatric Assessment
Guide 3005
August 2010

Pediatric General Assessment Protocol

Use Pediatric Assessment Triangle to form a general impression of the child.

Appearance

Characteristic	Features to Look For
Tone	Good muscle tone OR limp, listless, flaccid
Interactiveness	Alert, will reach for toy, light, OR is uninterested in playing or interacting
Consolability	Can be consoled OR crying or agitation is unrelieved
Look/Gaze	Fixes on face, object OR glassy eyed stare
Speech/Cry	Cry strong and spontaneous OR weak or high pitched Is Speech age appropriate OR confused, garbled?

Breathing

Characteristics	Features to Look For
Abnormal Airway Sounds	Snoring, muffled or hoarse speech, Stridor, grunting, wheezing
Abnormal positioning	Sniffing position, tripoding, refusing to lie down
Retractions	Supraclavicular, intercostal, substernal retractions of the chest wall; head bobbing in infants
Flaring	Flaring of the nares on inspiration

Circulation/ Skin Color

Characteristic	Features to look for
Pallor	White or pale skin or mucous membranes
Mottling	Patchy/lacey skin discoloration due to vasoconstriction/ vasodilatation
Cyanosis	Bluish discoloration of skin/mucous membranes

*If patient is in severe distress expedite transport

South Dakota Pediatric Guidelines
Allergic Reaction
Guide 3010

August 2010

Severe Allergic Reaction: Airway constriction/dyspnea, edema, hives, wheezing

EMT

- ✓ Complete patient assessment
- ✓ Maintain airway and administer O2 via non-rebreather 12-15 LPM
  - Be prepared to assist with ventilations
- ✓ Remove allergen, if present
- ✓ If severe symptoms are present, administer Epi-Jr. Auto-injector
  - Patient >66 lbs, 0.3 mg Epi-Pen Jr.
  - Patient 33-66 lbs, 0.15 mg Epi-Pen Jr
  - Patient <33 lbs, contact Medical Direction
- ✓ Be alert and treat for shock
- ✓ Transport patient in position of comfort
- ✓ Consider calling for ALS intercept, if available

Moderate vs. Severe Reactions		
Sign or Symptom	**Moderate Reaction**	**Severe Reaction**
Itching	Yes	Yes
Hives	Yes	Yes
Flushed Skin	Localized	Widespread
Cyanosis	No	Yes
Edema	Mild	Severe
Heart Rate	Normal or slightly increased	Significantly increased
Blood Pressure	Normal	Decreased
Mental Status	Normal	Decreased to unresponsive
Respirations	Normal or slightly increased	Severely increased
Wheezing	No	Present in all lung fields
Stridor	No	Yes
Blood Pressure	Normal	Decreased

South Dakota Pediatric Guidelines
Altered Mental Status
Guide 3015

August 2010

EMT

- ✓ Complete patient assessment
- ✓ Maintain airway
- ✓ Administer O2 as condition warrants
  - ■ Be prepared to assist with ventilations
- ✓ If perfusion is inadequate or pulse drops below 60/minute; begin CPR
- ✓ If indication of trauma, treat as trauma patient
- ✓ Obtain blood glucose level, if available
- ✓ Transport patient
- ✓ Consider ALS intercept, if available
- ✓ Consider possible causes and refer to appropriate guideline

Glascow Coma Scale

Infant		Child/Adult	
Eye Opening			
4	Spontaneously	Spontaneously	4
3	To speech	To command	3
2	To pain	To pain	2
_____ 1	No response	No response	1_____
Best Verbal Response			
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3	Flexion (decorticate)	Flexion (decorticate)	3
2	Extension (decerebrate)	Extension (decerebrate)	2
_____ 1	No response	No response	1_____
_____	Total	Total	_____

South Dakota Pediatric Guidelines
Breathing Difficulty
Guide 3020

August 2010

EMT

- ✓ Complete patient assessment
- ✓ Maintain airway and administer O2 as condition warrants
- ✓ Assist patient with own inhaler
- ✓ Consider calling for ALS intercept if available
- ✓ Transport patient in position of comfort
- ✓ Be prepared to treat for respiratory failure

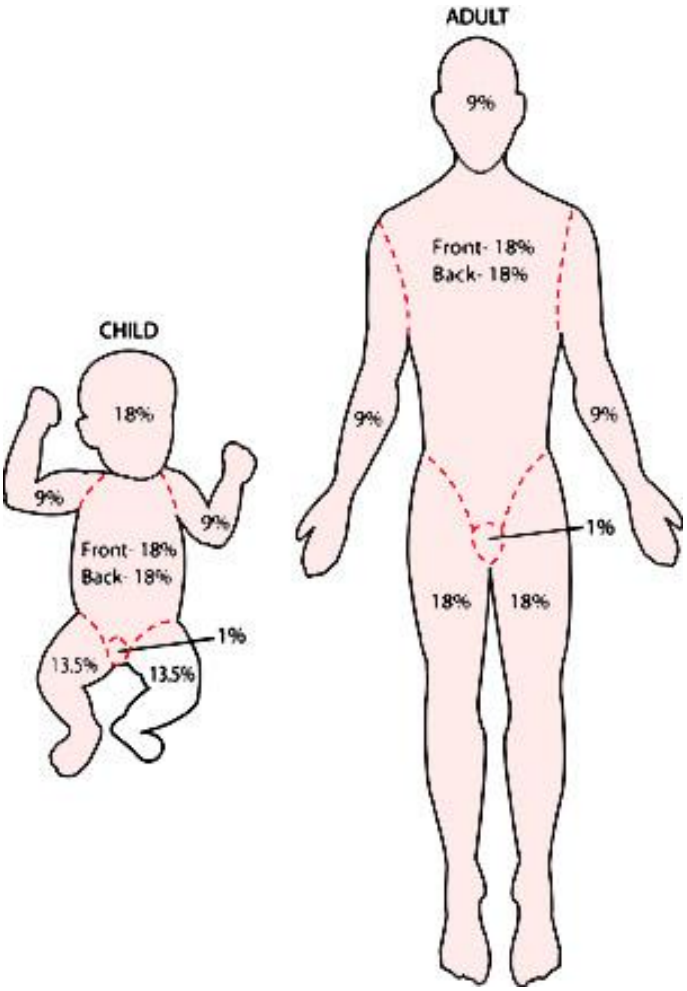
Differentiating Respiratory Diseases				
	Asthma	**Bronchitis**	**Epiglottitis**	**Croup**
Lung Sounds	Wheezes, mostly expiratory	Rhonchi, wheezing	Stridor	Stridor
Onset	Usually sudden	Acute: Rapid Chronic: Varies	Sudden	Gradual
Cough	Dry, sometimes thick, white mucus	Productive yellow, green, light brown	Uncommon	Characteristic Cough, Barking Seal
Fever	None	Acute: Elevated Chronic: None	High	Low-grade

South Dakota Pediatric Guidelines
Burns – Thermal
Guide 3025

August 2010

EMT

- ✓ Complete patient assessment
- ✓ Maintain airway
- ✓ Administer O2 via non-rebreather @ 10-15 LPM
- ✓ Stop burning process
  - Flush with saline or sterile water for one (1) minute
  - Remove all jewelry and clothing from the burn area
  - Cover burns with sterile dry dressings
- ✓ Treat for other injuries that may be present
- ✓ Transport patient
- ✓ Consider ALS intercept, if available



Under 10 years-old **Over 10 years-old**

South Dakota Pediatric Guidelines
Burns – Chemical
Guide 3025

August 2010

EMT

- ✓ Ensure you are not contaminated
- ✓ Complete patient assessment
- ✓ Maintain airway
- ✓ Administer O2 via non-rebreather @ 10-15 LPM
- ✓ Remove clothing and jewelry, flush skin with water or saline for at least 10 minutes
- ✓ If contaminant is dry powder, brush off BEFORE flushing
- ✓ Treat for other injuries that may be present
- ✓ Apply sterile dressings or burn sheet to burn area
- ✓ Transport patient
- ✓ Consider ALS intercept, if available

South Dakota Pediatric Guidelines
Burns – Electrical
Guide 3025

August 2010

EMT

- ✓ Eliminate electrical contact or source
- ✓ Complete patient assessment
- ✓ Maintain airway
- ✓ Administer O2 via non-rebreather @ 10-15 LPM
- ✓ Check for entry and exit wounds
- ✓ Treat for other injuries that may be present, watch for cardiac arrest
- ✓ Apply sterile dressings or burn sheet to burn area
- ✓ Transport patient
- ✓ Consider ALS intercept, if available

South Dakota Pediatric Guidelines
Cardiac Arrest
Guide 3030

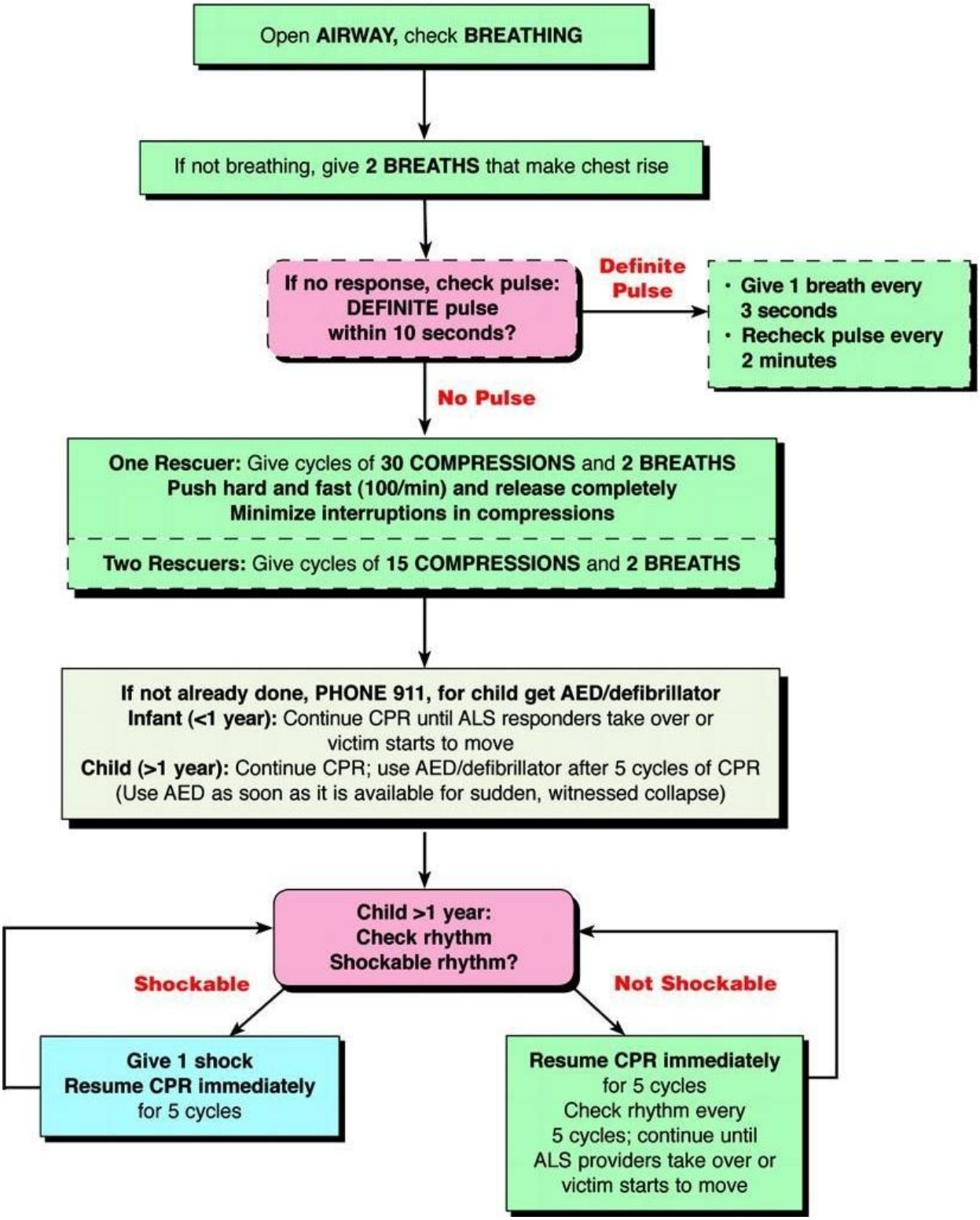
August 2010

EMT

- ✓ Complete patient assessment
- ✓ Follow current American Heart Association CPR/AED guidelines
- ✓ Ensure patient is not touching metal, water and that all medicine patches are removed
- ✓ Move patient to area that allows space for airway, CPR and AED operation
- ✓ Establish and maintain airway utilizing airways and ventilations with O2 @ 15 LPM
- ✓ Begin compressions if ventilations are being performed and pulse remains <60
- ✓ Place patient on backboard or other hard surface for patient transport
- ✓ Consider ALS intercept, if available

South Dakota Pediatric Guidelines
Cardiac Arrest
Guide 3030

August 2010



South Dakota Pediatric Guidelines
Child Abuse
Guide 3035

August 2010

EMT

- ✓ Complete patient assessment
- ✓ Consider child abuse:
  - Any injury without consistent history or explanation
  - Injury in non-mobile child
  - Significant injury reported resulting from household fall
  - Unconscious child with no history, or history of an insignificant fall
  - Severity of injury is inconsistent with the history
- ✓ Treat for other injuries that may be present
- ✓ Avoid questions suggesting blame or mechanism of injury
- ✓ Transport patient
- ✓ Consider ALS intercept if conditions warrant ALS, if available

South Dakota Pediatric Guidelines
Diabetic Emergency
Guide 3040

August 2010

Hypoglycemia: Altered mental status, pale, diaphoretic, may appear intoxicated, usually missed meal, usually glucose level < 70 mg/dl

EMT

- ✓ Complete patient assessment
- ✓ Consider O2 administration as situation warrants
- ✓ Obtain blood glucose level, if available
- ✓ Administer 15-25 grams oral glucose (1 tube) or other form of sugar
  - Patient is 4 months or older
  - Patient is symptomatic
  - Patient is able to swallow
- ✓ Administer up to 15 grams oral glucose or form of sugar or allow feeding
- ✓ Transport patient protecting airway
- ✓ Consider ALS intercept, if available

South Dakota Pediatric Guidelines
Drowning and Near Drowning
Guide 3045

August 2010

EMT

- ✓ Complete patient assessment
- ✓ Protect and immobilize cervical spine if condition warrants
- ✓ Control and maintain airway with O2 administration as necessary
- ✓ Check temperature, if available
- ✓ Treat for injuries and conditions associated with incident
  - Hypothermia
  - Cardiac arrest
- ✓ Transport patient
- ✓ Consider ALS intercept, if available

South Dakota Pediatric Guidelines
Environmental Emergencies-Heat
Guide 3050

August 2010

Heat Exhaustion & Heat Cramps: Severe muscle cramps, weak, pale, diaphoretic skin, fatigue, headache, dizziness, nausea/vomiting

EMT

- ✓ Complete patient assessment
- ✓ Remove patient from heat source and place in cool environment
- ✓ Oral rehydration, if able to maintain airway (ex. Gatorade or Pedialyte)
- ✓ Cool patient with moist towels
- ✓ Apply cold packs to neck, groin and armpits (avoid direct skin contact)
- ✓ Consider O2 as condition warrants

Heat Stroke: Hot and dry or moist skin, weakness, little or no perspiration, altered mental status, dilated pupils, possible seizure

EMT

- ✓ Complete patient assessment
- ✓ Remove patient from heat source and place in cool environment
- ✓ Remove clothing as necessary and practical
- ✓ Administer O2 as condition warrants
- ✓ Began cooling patient
  - Pour cool water over patient
    Place cold packs in groin, side of neck, armpits, and behind knee (avoid direct skin contact)
  - Fan aggressively
  - If shivering occurs, discontinue active cooling
- ✓ Consider ALS intercept, if available

South Dakota Pediatric Guidelines
Environmental Emergencies-Cold
Guide 3055

August 2010

General Hypothermia

EMT

- ✓ Complete patient assessment
- ✓ Handle patient carefully
- ✓ Prevent further heat loss
  - Remove patient from the environment
  - Remove any wet clothing
  - Insulate with blankets to prevent heat loss
  - Apply oxygen as condition warrants
  - Keep ambulance as warm as possible
- ✓ Transport

Core Body Temperature		Symptoms
99°F-96°F	37.0°C-35.5°C	Shivering.
95°F-91°F	35.5°C-32.7°C	Intense shivering, difficulty speaking.
90°F-86°F	32.0°C-30.0°C	Shivering decreases and is replaced by strong muscular rigidity. Muscle coordination is affected and erratic or jerky movements are produced. Thinking is less clear, general comprehension is dulled, possible total amnesia. Patient generally is able to maintain the appearance of psychological contact with surroundings.
85°F-81°F	29.4°C-27.2°C	Patient becomes irrational, loses contact with environment, and drifts into stuporous state. Muscular rigidity continues. Pulse and respirations are slow and cardiac.
80°F-87°F	26.6°C-20.5°C	Patient loses consciousness and does not respond to spoken words. Most reflexes cease to function. Heartbeat slows further before cardiac arrest occurs.

South Dakota Pediatric Guidelines
Frostbite & Frozen Emergencies
Guide 3060

August 2010

Frostbite: Loss of sensation to the area, skin is soft, but cold to touch and normal skin color does not return after palpation. The skin may begin to turn waxy gray or yellow color. As area thaws, patient may report tingling sensation to the area.

EMT

- ✓ Complete patient assessment
- ✓ Continue treatment of hypothermia and/or other injuries/medical conditions
- ✓ Protect frostbite injury from movement
- ✓ Handle gently and remove jewelry, clothing, etc. from the affected area or extremity
- ✓ Do not rub or allow friction to the injury
- ✓ Do not allow patient to walk
- ✓ Do not thaw the frostbite injury
- ✓ Transport

Frozen: The skin is white and waxy and area will be firm to completely solid, frozen feeling. Swelling with blisters may be present. As area thaws, it may become blotchy or mottled, with colors from white to purple to grayish-blue.

EMT

- ✓ Complete patient assessment
- ✓ Continue treatment of hypothermia and/or other injuries/medical conditions
- ✓ Protect frozen injury from movement
- ✓ Handle gently and remove jewelry, clothing, etc. from the affected area or extremity
- ✓ Do not rub or allow friction to the injury
- ✓ Cover injury with dressings or dry clothing
- ✓ Do not allow patient to walk
- ✓ Do not thaw the frozen injury
- ✓ Transport

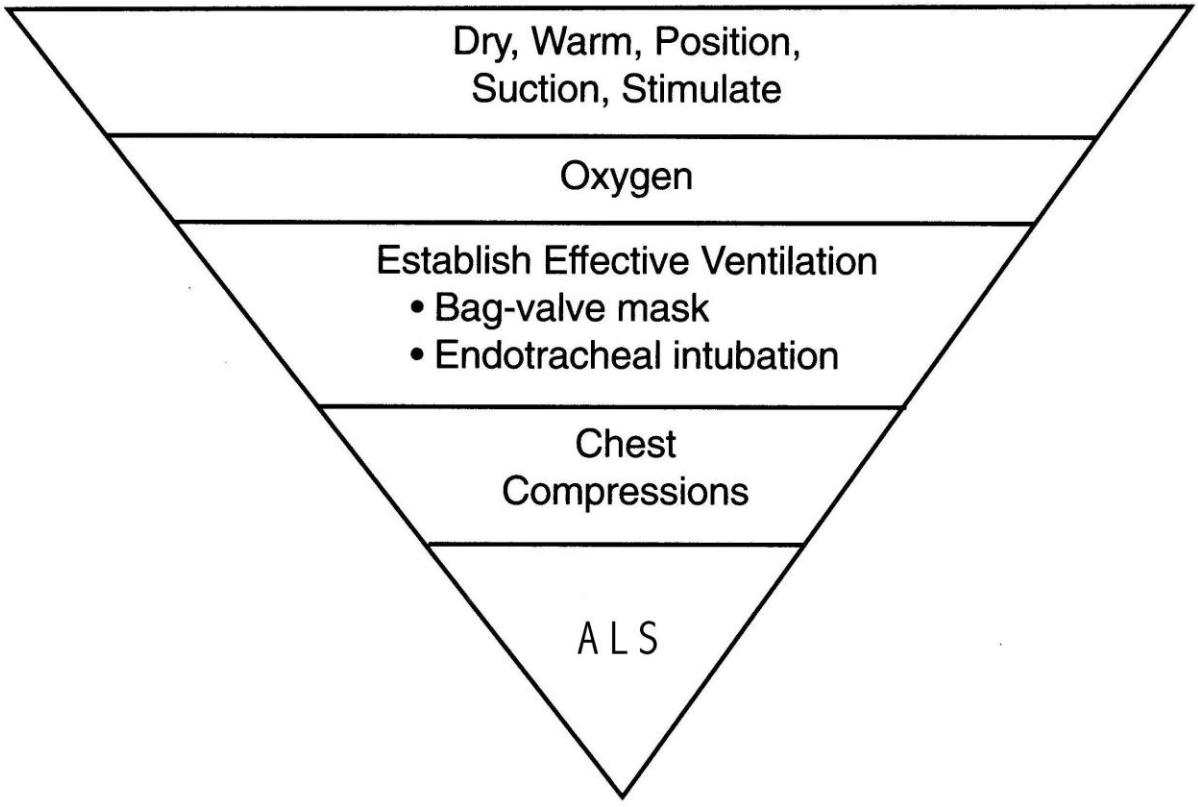
South Dakota Pediatric Guidelines
Newborn Resuscitation
Guide 3065

August 2010

EMT

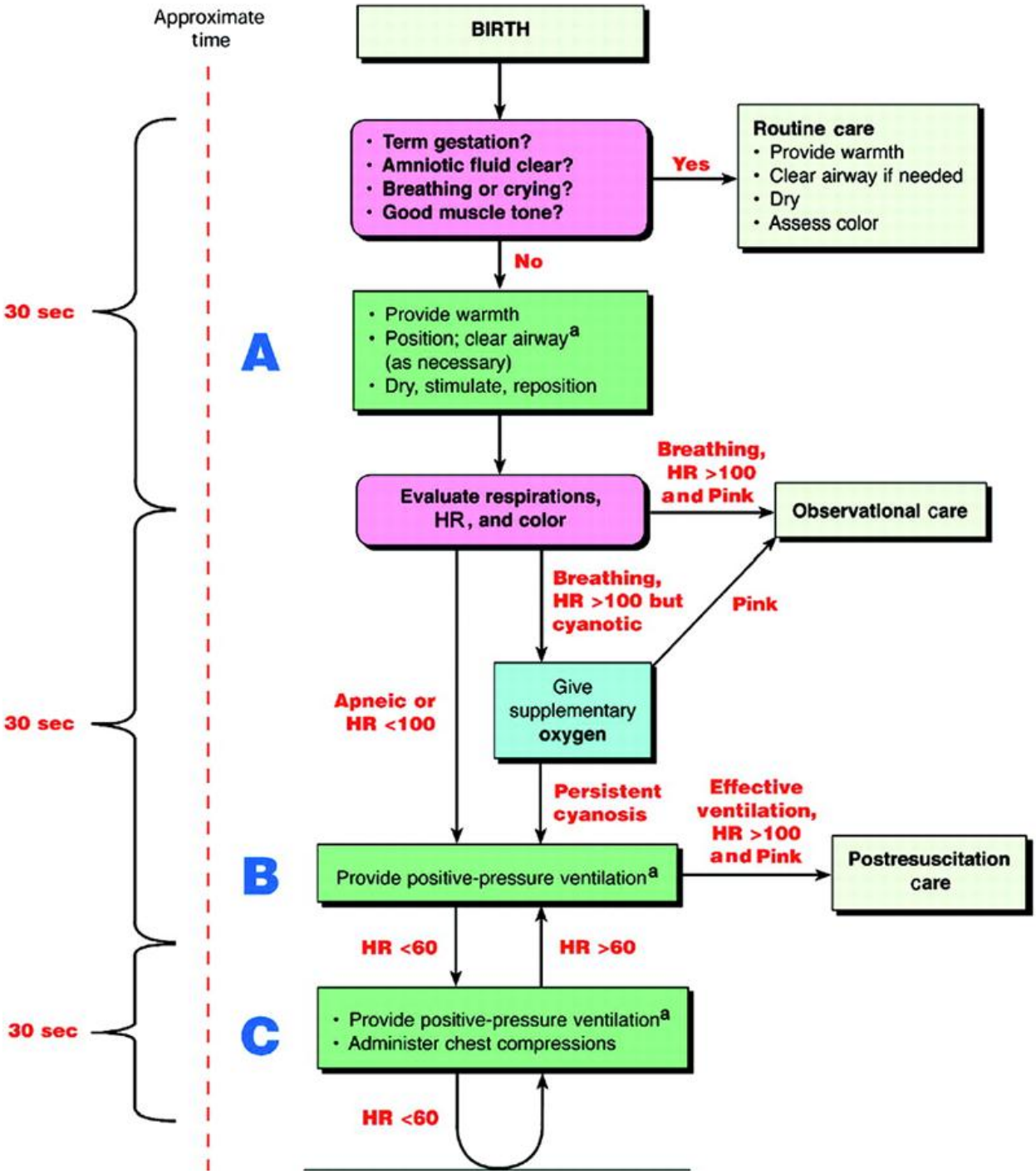
- ✓ During delivery, suction mouth THEN nose before delivery with bulb syringe
- ✓ Dry infant and maintain warm environment
  - Wrap baby in thermal blanket
  - Cover head to preserve warmth
  - Keep ambulance as warm as possible
- ✓ Assess Airway
  - If meconium is present, suction the airway while withdrawing suction tube
- ✓ Assess Breathing
  - Stimulate by rubbing back or flicking soles of the feet
  - If evidence of central cyanosis, administer 100% O2 via blow-by
- ✓ Assess Heart Rate at brachial artery
  - If rate <60 and poor signs of circulation are present after 30 seconds of ventilations, initiate compressions of 100/minute.
  - Stop compressions when heart rate becomes >60
  - If heart rate 60-100/minute, assist with ventilations until heart rate >100

Inverted Pyramid for Newborn Care



South Dakota Pediatric Guidelines
Newborn Resuscitation
Guide 3065

August 2010



South Dakota Pediatric Guidelines
Poisonings and Overdose
Guide 3070

August 2010

Ingested Poisons/Overdose

EMT

- ✓ Complete patient assessment
- ✓ Maintain airway if patient has altered level of consciousness
- ✓ Administer O2 as condition warrants.
  - Contact Poison Control: 1-800-222-1222, for assistance if needed
- ✓ Transport containers, bottles, labels with ingested substance information
- ✓ If patient shows signs of poor perfusion and pulse <60, follow CPR guidelines
- ✓ Transport patient in position of comfort or recovery position

Absorbed Poisons

EMT

- ✓ Remove patient from further exposure, maintaining your own safety
- ✓ Complete patient assessment
- ✓ Maintain airway if patient has altered level of consciousness
- ✓ Administer O2 as condition warrants
- ✓ Remove any clothing and decontaminate
- ✓ Brush off any dry chemicals or solid toxins, irrigate for 20 minutes
  - If eyes are involved, irrigate for at least 20 minutes, with water running away from the unaffected eye
- ✓ Contact Poison Control: 1-800-222-1222, for assistance if needed
- ✓ Transport patient in position of comfort or recovery position

South Dakota Pediatric Guidelines
Seizures
Guide 3075

August 2010

EMT

- ✓ Complete patient assessment
- ✓ Protect patient from harming self
- ✓ Administer oxygen as condition warrants
  - Maintain patient's airway post-seizure as necessary
- ✓ Obtain blood glucose level, if available
- ✓ Treat for additional medical or trauma conditions that may have caused or resulted from the seizure
- ✓ Transport in position of comfort or recovery position
- ✓ Consider ALS intercept, if available

South Dakota Pediatric Guidelines
Special Needs Children
Guide 3080

August 2010

These guidelines cover specific types of special healthcare needs in pediatric patients. Children with special healthcare needs are those who have or are at risk for chronic physical, developmental, behavioral, and emotional conditions that necessitate use of health and related services of a type or amount not usually required by typically developing children.

EMT

- ✓ Complete patient assessment
- ✓ Priority is given to ABC's
- ✓ Do not be overwhelmed by the machines or devices
- ✓ Listen to the caregiver, they know the child best. Inquire about:
  - Child's baseline abilities
  - Syndromes/Diseases
  - What is different today
  - Symptoms
  - Usual vital signs
  - Devices and medications
- ✓ Assume that the child can understand exactly what you say
- ✓ Bring all medication and necessary equipment to the hospital if possible (ventilator, trach or gastrostomy tube, etc)
- ✓ Ask about forms that may delineate specific resuscitation limitations
- ✓ Ask caregivers best way to move the child

South Dakota Pediatric Guidelines
Special Needs Children – Central Intravenous Catheters
Guide 3080

August 2010

Uses

► Medication administration, parenteral (IV) hydration / nutrition administration.

Types

► Totally Implanted (such as Mediport®) or multilumen catheters (such as Hickman® or Broviac® catheters).

Assessment Issues

► Evaluate for DOPE & Infection

- ✓ **Displaced** – total or partial dislodgement or movement out of vein into internal tissues
- ✓ **Obstructed** – blood clot, protein, crystallized medications / IV nutrition
- ✓ **Pericardial Tamponade** - fluid in the pericardial sac due to perforation by catheter **or**
- ✓ **Pulmonary problems** – pneumothorax, pulmonary embolism from clot or catheter shear
- ✓ **Equipment** – tubing kinked or cracked, infusion pump failure.

EMT

- ✓ Complete patient assessment
- ✓ Apply direct pressure if bleeding at site or clamp if tubing leading
- ✓ Administer oxygen as necessary

South Dakota Pediatric Guidelines
Special Needs Children – Colostomy
Guide 3080

August 2010

Uses

► Temporary or permanent malfunction or obstruction of intestine

Types

► Open stomas draining into plastic pouches

Assessment Issues

► Evaluate infection, irritation / trauma, peritonitis

EMT

- ✓ Complete patient assessment
- ✓ Apply direct pressure if bleeding at site or clamp if tubing leading
- ✓ Saline moistened sterile dressing covered by dry dressing if stoma is exposed

South Dakota Pediatric Guidelines
Special Needs Children – CSF Shunt
Guide 3080

August 2010

Uses

► Post meningitis, brain injury / surgery / tumors, hydrocephalus (water on the brain)

Types

► Polyethylene tubing with reservoir from brain ventricles to abdomen or heart

Assessment Issues

► Evaluate for DOPE & Infection (including meningitis or infected shunt)

- ✓ **Displaced** – movement of tip into abdominal or heart lining
- ✓ **Obstructed** – blood clot, protein, kinked tubing causing increased intracranial pressure
- ✓ **Peritonitis, Perforation or Pseudocyst** – of stomach / bowel
- ✓ **Equipment** – damaged or separated tubing or reservoir.

EMT

- ✓ Complete patient assessment
- ✓ Administer oxygen as necessary
- ✓ Hyperventilate if signs of brain herniation such as unresponsiveness with unequal pupils, fixed dilated or unresponsive pupils, or increased blood pressure and decreased heart rate

South Dakota Pediatric Guidelines
Special Needs Children – Feeding Tubes
Guide 3080

August 2010

Uses

► Total or enhanced feeding & / or medication administration
► Abdominal / gastrointestinal problems
► Neurological or neuromuscular – brain damage, muscular dystrophy, etc.

Types

► Gastrostomy (G) tube: Percutaneous into stomach.
► Jejunal (J) tube: Percutaneous into jejunum.
► Nasogastric (NG) or nasojejunal (NJ) tube

Assessment Issues

► Evaluate for DOPE & Infection (including peritonitis or cellulitis)
- ✓ **Displaced** – total or partial removal of tube
- ✓ **Obstructed** – blood, crystallized feeding / medications, abdominal tissues
- ✓ **Peritonitis or Perforation** of stomach / bowel
- ✓ **Equipment** – tubing kinked or cracked, feeding infusion pump failure

EMT

- ✓ Complete patient assessment
- ✓ Direct pressure if bleeding at site.
- ✓ Dry sterile dressing over area if tube is dislodged, or tape partially dislodged tube in place. If tube is blocked, stop feeding and plug tube
- ✓ If abdominal distention or vomiting, may leave tube open and draining into cup
- ✓ Bring old tube to hospital for sizing purposes

South Dakota Pediatric Guidelines
Special Needs Children – Tracheostomy
Guide 3080

August 2010

Technology-Assisted Children – Among Children with Special Health Care Needs is a growing sub-population of children with chronic illnesses who are dependent on medical devices. Several of the most common devices are summarized below with information to assist in the care of children with those devices.

Tracheostomy – breathing tube into trachea through opening in neck.
Uses
- ► Respiratory problems – narrow or obstructed airways, bronchopulmonary dysplasia (chronic lung disease seen in premature babies), etc.
- ► Neurological or Neuromuscular conditions – brain damage, muscular dystrophy, etc.
- ► May be ventilator dependent totally or part of time or may breathe on own.

Types
- ► Uncuffed – infant & young child; Cuffed – older child (usually >age 8yr) and adolescent.
- ► Fenestrated – hole in stem allows breathing through vocal cords to permit talking, or weaning off tracheostomy.
- ► May be single tube or have inner cannula, which can be removed & cleaned.

Assessment Issues
- ► Evaluate for DOPE & Infection (tracheal or pulmonary).
  - ✓ **Displaced** – total or partial removal of tube.
  - ✓ **Obstructed** – mucus plug, blood, foreign body, or moved against soft tissues.
  - ✓ **Pulmonary problems** – pneumothorax, pneumonia, reactive airway, aspiration.
  - ✓ **Equipment** – ventilator malfunction, oxygen depletion, tubing kinked.
- ► Reassess pulse/respiratory rates frequently.

EMT

- ✓ Complete patient assessment
- ✓ If on ventilator, disconnect and attempt to ventilate with BVM using tracheostomy adaptor (if needed)
- ✓ If not on ventilator, administer oxygen with mask or blow-by oxygen over trach as needed

South Dakota Pediatric Guidelines
Sudden Infant Death Syndrome
Guide 3085

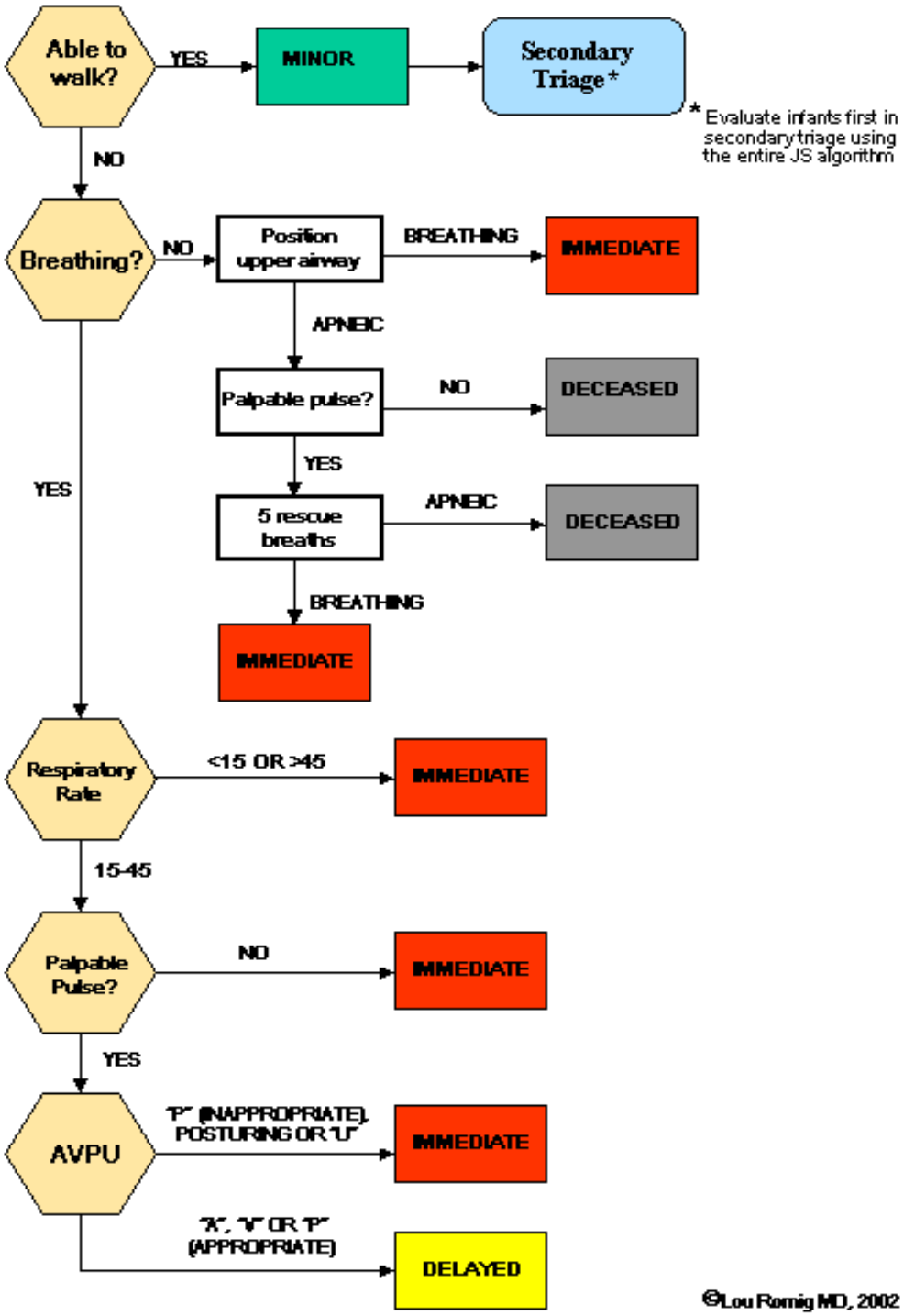
August 2010

EMT

- ✓ Complete patient assessment
- ✓ Initiate CPR unless obvious signs of death
- ✓ Observe carefully and note:
  - Location and position of child
  - Ambient temperature
  - Objects immediately surrounding the child; including type of mattress and bedding; do not remove or move objects
  - Behavior of all people present and the explanations provided
  - Vomit in mouth or foreign body present
- ✓ Document all observations and report to receiving facility, if patient transported
- ✓ Consider ALS intercept, if available

South Dakota Pediatric Guidelines
START/JumpSTART Triage
Guide 3090
August 2010

JumpSTART Pediatric MCI Triage©



Medication List

-Activated Charcoal
-Dextrose (Glucose)
-Epinephrine
-Nitroglycerin
-Oxygen

South Dakota Medical Guidelines
Activated Charcoal
Guide 4005

August 2010

Medication Names
SuperChar, InstaChar, Actidose, Actidose-Aqua, Liqui-Char, Charcoaid

Indications
Should be used for a patient who has ingested poison by mouth

Contraindications
Altered mental status
Ingestion of acids or alkalis (hydrochloric acid, bleach, ammonia, ethanol)
Unable to swallow
Cyanide overdose

Dosage
Adult: 30 to 100 grams
Infants: 12.5 to 25 grams

Side Effects
Blackening of stools
Nausea/vomiting
Constipation
Abdominal cramping

South Dakota Medical Guidelines
Dextrose – Oral Glucose
Guide 4010

August 2010

Medication Names
Glutose, Insta-Glucose, Glucosa

Indications
Hypoglycemia
Altered level of consciousness with suspicion of hypoglycemia

Contraindications
Patient who cannot maintain own airway or swallow
Vomiting

Dosage
15-25 grams (1 tube)

Side Effects
None when used correctly in emergency setting

South Dakota Medical Guidelines
Epinephrine Auto-Injector
Guide 4015

August 2010

Medication Names
Epinephrine, adrenaline, EpiPen, EpiPen Jr.

Indications
Signs and symptoms of severe allergic reaction

- ✓ History of an allergic reaction
- ✓ Edema of tongue, mouth or throat
- ✓ Dyspnea or respiratory distress
- ✓ Hypoperfusion/decreased blood pressure
- ✓ General itching/skin welts
- ✓ Flushing
- ✓ Rapid pulse
- ✓ Wheezing and/or stridor

Contraindications
None when used in a life-threatening situation

Dosage
Adult: one adult auto-injector (0.3 mg) if patient weighs greater than 30 kg (66 lbs)
Child: one infant/child auto-injector (0.15 mg) if patient weighs less than 30 kg (66 lbs)

Side Effects
Increased pulse
Pallor
Dizziness
Chest pain
Headache
Nausea/vomiting
Excitability
Anxiety
Tremors

South Dakota Medical Guidelines
Nitroglycerin
Guide 4020

August 2010

Medication Names
Nitro, Nitro-Spray, Nitro-Stat, Nitrodur, NTG, Nitro Paste

Indications
Acute chest pain
Congestive heart failure

Contraindications
Hypotension
Head injury
Hypovolemia
Patient has taken medication for erectile dysfunction in past 48 hours

Dosage
Nitro tabs: 0.4 mg (1 tablet) Sublingually
Nitro spray: 0.4 mg (1 spray) Sublingually
Nitro paste: ½" – 1"

Side Effects
Headache
Dizziness
Weakness
Tachycardia
Hypotension
Nausea/vomiting
Syncope
Diaphoresis

South Dakota Medical Guidelines
Oxygen
Guide 4025

August 2010

Medication Names
Oxygen, O2

Indications
Hypoxia
Chest pains
Dyspnea
Carbon monoxide poisoning
Decreased level of consciousness
Patient with critical assessment findings

Contraindications
Hyperventilation

Dosage
Nasal cannula: 1-6 LPM
Non-rebreather: 10-15 LPM

Side Effects
Decreased level of consciousness and respiratory depression in patient's with CO2 retention
Dry mucus membranes

Method	Flow Rate	Percent O_2 Delivered
Room Air		21%
Nasal Cannula	1 LPM	24%
	2 LPM	28%
	4 LPM	36%
	6 LPM	44%
Non-Rebreather Mask	10 - 15 LPM	80 - 90%
Pocket Mask	10 LPM	50%
	15 LPM	80%
Bag-Valve-Mask (with Reservoir)	12 - 15 LPM	90 - 100%
Flow-Restricted, Oxygen-Powered Device (Positive Pressure)	40 LPM	100%

South Dakota Medical Guidelines
Oxygen
Guide 4025

August 2010

Oxygen Cylinders

Bottle Size	Volume in Liters	Time @ 5 LPM	Time @ 10 LPM	Time @ 15 LPM
D	360	1 hr., 12 min.	36 min.	24 min.
E	625	2 hrs., 5 min.	1 hr., 3 min.	42 min.
M	3,200	10 hrs.	5 hrs.	3 hrs., 20 min.
G	5,300	17 hrs., 40 min.	8 hrs., 50 min.	5 hrs., 53 min.
H	6,900	23 hrs.	11 hrs., 30 min.	7 hrs., 40 min.

The above values are based on full bottle (2,000 - 2,200 psi) at 70°F.

Allow for pressure drop of 5 psi for every 1 degree drop in temperature below 70°F. This amounts to approximately 10% reduction in volume at 32°F or 18% reduction at O°F.

South Dakota Medical Guidelines
Aspirin
Guide 4030
June 2012

Medication Names
Aspirin

Indications
Acute chest pain

Contraindications
Allergy to aspirin
GI Bleeding
Bleeding Disorders
Peptic Ulcers

Dosage
4 chewable 81 mg tablets PO **IF ALLOWED BY YOUR LOCAL PROTOCOLS**

Side Effects
Thrombocytopenia
GI bleeding
Nausea/vomiting
Drowsiness
Flushing
Tinnitis

Reference Guides

- Combitube
- Epinephrine Auto Injector
- Metered Dose Inhaler
- PASG/MAST Pants
- Glasgow Coma Scale & Revised Trauma Score
- Vital Signs

South Dakota Medical Guidelines
Combitube
Guide 5005
August 2010

Indications

- ✓ An unconscious patient that is unable to protect airway, without a gag reflex

Contraindications

- ✓ Patients less than 5' tall for a standard Combitube and less than 4' for a Combitube SA (small adult)
- ✓ Patient less than 16 years-old
- ✓ Patients with known esophageal disease
- ✓ Patients who have ingested a caustic substance
- ✓ Presence of tracheostomy
- ✓ Known or suspected airway obstruction of the larynx or trachea

Guidelines for Insertion

- ✓ Check Combitube and ensure cuffs inflate properly
- ✓ Ventilate the patient 15 seconds using high-flow oxygen
- ✓ Place patient head in neutral, inline position
- ✓ Perform a tongue-jaw lift with thumb
- ✓ Insert Combitube gently, but firmly within 30 seconds of ceasing ventilations
  - Stop insertion when the teeth are between the two black rings
  - If C-spine injury is suspected, ensure c-spine precautions are taken
  - If facial trauma present, use caution as to prevent cuff tears on broken teeth
- ✓ Inflate blue pilot balloon, marked #1 with 100 mL of air
- ✓ Intlate white pilot balloon marked #2 with 15 mL of air
- ✓ Ventilate through the longer blue tube and check lung sounds
- ✓ Ventilate through the shorter white tube if no lungs sounds present on first blue tube and check for lung sounds

In general it is not appropriate to remove a properly placed Combitube. The return of the patient's gag is not sufficient reason to remove the Combitube. The patient's level of consciousness must be sufficient to spontaneously protect their own airway

Guidelines for Removal

- ✓ Position patient on side, using spinal injury precautions when indicated
- ✓ Have suction equipment readily available, be prepared for vomiting.
- ✓ Deflate cuffs (blue, then white) and withdraw in a smooth, steady motion
- ✓ Suction as needed, monitoring airway and respirations closely

South Dakota Medical Guidelines
Epinephrine Auto Injector
Guide 5015
August 2010

Guidelines for Administration

- ✓ Check Epi-Pen injector
  - Ensure proper dosage
  - Ensure medication is not discolored
  - Check expiration date
- ✓ Obtain medical direction if possible, if unable, follow local protocol
- ✓ Cleanse site if possible
- ✓ Place auto injector against the lateral portion of patient's thigh
- ✓ Hold injector firmly against thigh until injector activates and medication is injected (at least 10 seconds)
- ✓ Document administration time, site and dosage
- ✓ Dispose injector into sharps container

South Dakota Medical Guidelines
Glasgow Coma Scale & Revised Trauma Score
Guide 5020

August 2010

Infant		Child/Adult	
Eye Opening			
4	Spontaneously	Spontaneously	4
3	To speech	To command	3
2	To pain	To pain	2
_____ 1	No response	No response	1_____
Best Verbal Response			
5	Coos, babbles	Oriented	5
4	Irritable cries	Confused	4
3	Cries to pain	Inappropriate words	3
2	Moans, grunts	Incomprehensible	2
_____ 1	No response	No response	1_____
Best Motor Response			
6	Spontaneous	Obeys commands	6
5	Localizes pain	Localizes pain	5
4	Withdraws from pain	Withdraws from pain	4
3	Flexion (decorticate)	Flexion (decorticate)	3
2	Extension (decerebrate)	Extension (decerebrate)	2
_____ 1	No response	No response	1_____
_____	Total	Total	_____

Revised Trauma Score

Respiratory Rate	10 - 29	4
	> 30	3
	6 - 9	2
	1 - 5	1
	None	0 _____
Systolic Blood Pressure	> 90	4
	76 - 89	3
	50 - 75	2
	1 - 49	1
	No pulse	0 _____
Convert Glasgow Coma Scale	13 - 15	4
	9 - 12	3
	6 - 8	2
	4 - 5	1
	1 - 3	0 _____

Total for Revised Trauma Score _____

South Dakota Medical Guidelines
MDI: Meter Dose Inhaler
Guide 5025

August 2010

A meter dose inhaler is used when the patient is showing signs and symptoms of asthma, respiratory distress, allergic reaction and CHF/pulmonary edema

Guidelines for Administration

- ✓ Check the inhaler
  - Ensure proper medication
  - Ensure that it is patients
  - Check expiration date
- ✓ Shake can vigorously
- ✓ Ask patient to exhale deeply and place lips around inhaler opening
- ✓ Ask patient to inhale slowly and deeply as they depress the canister
- ✓ Have the patient hold their breath for as long as comfortably possible
- ✓ Replace oxygen mask on patient
- ✓ Repeat 2nd dose as needed in approximately one minute

South Dakota Medical Guidelines
PASG/MAST Pants
Guide 5030

August 2010

Indications

- ✓ Pelvic fracture with hypotension (systolic blood pressure < 90 mmHg)
- ✓ Profound hypotension (systolic blood pressure < 60 mmHg)

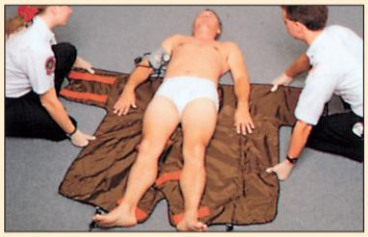
Contraindications

- ✓ Penetrating thoracic trauma
- ✓ Splinting of lower extremity fractures
- ✓ Evisceration of abdominal organs
- ✓ Impaled objects in the abdomen
- ✓ Pregnancy
- ✓ Traumatic cardiac arrest
- ✓ Hypotension associated with heart attack

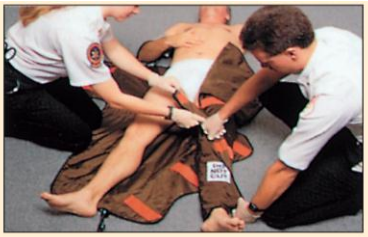
EMT

- ✓ Remove clothes from lower half of body
- ✓ Apply by logrolling patient onto or sliding device under patient
- ✓ Fasten straps
- ✓ Inflate leg chambers, then abdomen
- ✓ Inflate until Velcro crackles or pressure is 80 mmHg, if gauge available
- ✓ Check blood pressure every 5 minutes

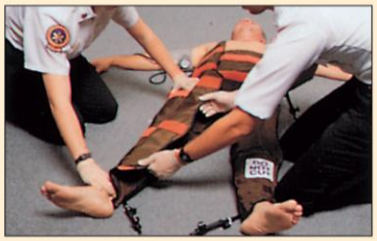
10-1a Open the PASG.



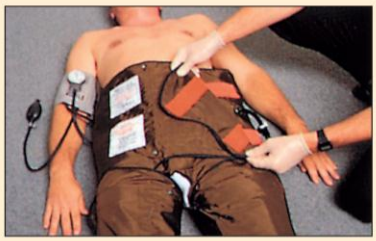
10-1b Place the patient on the PASG and take a set of baseline vital signs.



10-1c Position the patient.



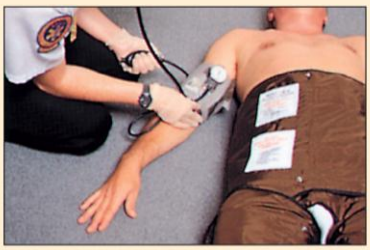
10-1d Wrap the legs, following the manufacturer's recommendations.



10-1e Wrap the abdomen last.

10-1f Connect the tubing.

10-1g Inflate the PASG, both legs first.



10-1h Monitor the patient.

10-1i Close the stopcock valve.

South Dakota Medical Guidelines
Pulse Oximetry
Guide 5035

August 2010

Indications

- ✓ Respiratory distress/complaints
- ✓ Cardiac conditions
- ✓ Multiple system trauma
- ✓ Poor color
- ✓ Patient's requiring use of airway adjuncts and/or ventilation
- ✓ Suspected shock
- ✓ Altered level of consciousness

Precautions

- ✓ Patients with hemoglobin disorders such as CO poisonings and anemia may give high O2 readings.
- ✓ Readings may be difficult to obtain in states of low perfusion
- ✓ Fingernail polish may make readings difficult or inaccurate

Pulse Oximetry Readings

95% - 100%	Normal
90% - 94%	Evaluate patient, begin O2 treatment
85% - 90%	Evaluate patient, begin 100% O2 & treat aggressively
< 85%	Major crisis: Evaluate patient, begin 100% O2 & treat aggressively

South Dakota Medical Guidelines
Vital Signs
Guide 5040

August 2010

Ages	Systolic BP	Diastolic BP	Pulse Rate	Resp. Rate
Newborn	80	46	110-150	30-50
6 - 12 months	89	60	100-140	20-30
1 year	96	66	90-110	
2 years	98	64		
3 years	100	68	80-120	
4 years	98	66		
5 - 6 years	94	56	80-100	
6 - 7 years	100	56		
8 - 9 years	106	58	70-110	
9 - 10 years	108	58		14-22
10 - 11 years	112	58		
11 - 12 years	114	60	60-100	
12 - 13 years	116	60		12-20
13 - 18 years	118	60		
18 and older	120	80		

Special Circumstances And Laws

-Baby Moses Law
-Bloodborne Pathogens
-Comfort One/DNR
-Crime Scenes/Preservation of Evidence
-Critical Incident Stress Management
-DOA Criteria
-South Dakota Emergency Traffic Laws

South Dakota Medical Guidelines
Baby Moses Law
Guide 6005
August 2010

Baby Moses Law

Parenting is an exciting and enjoyable time for some and for others it can bring a great deal of stress and fear. If for any reason you feel you cannot parent your child, there are safe places where you can leave your baby. These safe places will take your baby with open arms, no questions asked. These secure places will make sure your baby receives the care and protection he or she deserves.

Safe Places to Leave your Baby

State law in South Dakota allows you to voluntarily leave your baby with a hospital or child placement agency if your child is less than 60 days old. Leaving your baby with one of these places is not a crime as long as your child has not been harmed.

You can leave your baby with:

- Hospitals or clinics
- Law enforcement officers
- Licensed child placement agencies
- Department of Social Services
- Emergency medical technicians
- Firefighters

You may ask for medical information relating to your baby's medical history. However, it is not required that any information, including name or the parent's name.

Parental Rights will be Terminated

The place where you leave your baby must notify the Department of Social Services that it has a child. The Department cannot attempt to identify, contact or investigate unless it appears the child has been harmed. The Department or the child placement agency will take custody and care for the baby.

South Dakota Medical Guidelines
Bloodborne Pathogens
Guide 6010

August 2010

BLOODBORNE PATHOGENS

Emergency Medical Services personnel should assume that all bodily fluids and tissues are potentially infectious with bloodborne pathogens including HIV (causing AIDS) and HBV (causing hepatitis), and must protect themselves accordingly by use of body substance isolation (BSI).

Body substance isolation procedures include the appropriate use of hand washing, protective barriers (such as gloves, masks, goggles, etc.), and care in the use and disposal of needles and other sharp instruments. EMTs are also encouraged to obtain the hepatitis B vaccine series to decrease the likelihood of hepatitis B transmission. EMTs who have exudative lesions, weeping dermatitis, or open wounds should refrain from all direct patient care and from handling patient-care equipment as they are at increased risk of transmission and reception of bloodborne pathogens through these lesions. Transmission of bloodborne pathogens has been shown to occur when the blood of the infected patient is able to come in direct contact with the blood of the health-care worker.

Body substance isolation should be practiced in any environment where workers are exposed to bodily fluids, such as:

- ✓ Blood
- ✓ Sputum
- ✓ Semen
- ✓ Vaginal secretions
- ✓ Synovial fluid
- ✓ Amniotic fluid
- ✓ Cerebrospinal fluid
- ✓ Pleural fluid
- ✓ Peritoneal fluid
- ✓ Pericardial fluid

EMTs who have had a direct bloodborne pathogen exposure should immediately wash the exposed area with soap and water and a suitable disinfectant. The exposed area should then be covered with a sterile dressing. Upon arrival at the destination hospital, after responsibility for the patient has been transferred to the emergency department, the EMT should thoroughly cleanse the exposed site.

Any ambulance personnel who have had a KNOWN significant exposure to infectious blood or body fluids while providing emergency care to an ill or injured person should follow the individual service exposure guideline and may notify by facsimile or telephone the Department of Health, Office of Communicable Disease Prevention and Control following such exposure. The Communicable Disease Office fax number is (605) 773-5509; telephone number is 1-800-592-1861 or (605) 773-3737.

Upon receiving the report, the Office of Communicable Disease Prevention and Control will contact the exposed individual to evaluate the exposure, counsel, and make referral to a physician if indicated.

South Dakota Medical Guidelines
Comfort One/Do Not Resuscitate
Guide 6015

August 2010

Cardiopulmonary Resuscitation Directive (DNR) is an advance medical directive pertaining to the administration of cardiopulmonary resuscitation, which is a medical order based on informed consent, signed by or on behalf of an individual and a physician, a physician assistant, or a nurse practitioner, directing emergency medical services personnel to not perform resuscitative measures in the event of a respiratory or cardiac arrest or malfunction.

INFORMATION FOR EMERGENCY MEDICAL SERVICES PERSONNEL

If you are presented with the **Comfort One** form or encounter a patient wearing a **Comfort One** bracelet, South Dakota law requires that you follow the **Comfort One**/South Dakota EMS Cardiopulmonary Resuscitation Directive protocols.

For a **Comfort One** patient, emergency medical services personnel:

WILL:

- Assist in maintenance of an open airway, **excluding** advanced airway procedures such as the insertion of PtL, combitubes or endotracheal intubation;
- Provide suction;
- Provide oxygen;
- Provide pain medications as directed by patient's physician, physician assistant, or nurse practitioner;
- Control bleeding;
- Provide comfort care; and
- Be supportive to patient and family.

If someone else has already begun resuscitating a **Comfort One** patient prior to your arrival you:

WILL WITHHOLD OR WITHDRAW:

- Chest Compressions;
- Defibrillation;
- Advanced airway procedures;
- Assisted breathing; or
- Administration of resuscitation medications.

EMS CARDIOPULMONARY RESUSCITATION DIRECTIVE

South Dakota EMS

PATIENT INFORMATION (Type or Print)

Patient Name:_____ #_____

Address: _____ City: _____State:_____ Zip: _____

D.O.B: _____Gender: M-☐ F-☐ Eye Color: _____ Hair Color: _____

Race/Ethnic Background: _____

Hospice Program Name (if applicable): _____

Attending Physician, Physician Assistant, or Nurse Practitioner Name, Address & Phone Number:

_____

_____

_____

CERTIFICATION OF COMFORT ONE STATUS/EMS-CPR ADVANCE DIRECTIVE

This form constitutes reliable documentation that the above identified patient is certified as a **COMFORT ONE** patient and as such directs EMS personnel, health care providers and health care facilities to not resuscitate the patient in accordance with the South Dakota EMS Cardiopulmonary Resuscitation Directive Statute.

DO NOT RESUSCITATE

Patient Signature: _____ Date: _____

My signature below constitutes and confirms standing orders to emergency medical services personnel, health care providers and health care facilities to follow the **COMFORT ONE** / South Dakota EMS Cardiopulmonary Resuscitation Directive protocols. I affirm that this order is written in accordance with accepted medical and ethical guidelines.

Physician, Physician Assistant, or Nurse Practitioner Signature: _____ Date: _____

INFORMATION TO PATIENT

This form certifies you as a **COMFORT ONE** patient under South Dakota law. If this form or **COMFORT ONE** bracelet is presented to pre-hospital emergency response personnel, they are required to provide the care described on the reverse side. Emergency medical care will be directed at preventing avoidable suffering and providing supportive comfort measures. It is understood that as a **COMFORT ONE** patient you will be allowed to die in the natural course of your illness or disease.

REVOCATION

The **COMFORT ONE** status of the patient may be revoked, at any time by the patient or the person authorized to make medical decisions for the patient. Written notice of the revocation shall be provided in writing as soon as practical to the Department, the attending physician and to those who have actual notice of the CPR directive.

If this form or a bracelet is not immediately available the patient will be resuscitated!

PATIENT'S COPY

South Dakota Medical Guidelines
Crime Scenes/Preservation of Evidence
Guide 6020

August 2010

If you believe a crime has been committed, contact or notify law enforcement immediately. Protect yourself and other providers. Initiate patient contact only after law enforcement have deemed scene is safe.

EMT

- ✓ Do not touch or move anything at a crime scene unless it is necessary to do so for patient care
- ✓ Have all EMS providers use the same path of entry and exit.
- ✓ Do not walk through fluids on the floor or ground
- ✓ Observe and document original location of items moved by EMS personnel
- ✓ When removing clothing, leave intact as much as possible
- ✓ Do not cut through clothing holes made by gunshot or stabbing
- ✓ If you remove any items from the scene, document action and advise law enforcement
- ✓ Do not sacrifice patient care to preserve evidence
- ✓ Inform receiving hospital that the patient is involved in a crime scene.
- ✓ If traffic accident, preserve scene by parking away from skid marks and debris.

South Dakota Medical Guidelines
Critical Incident Stress Management (CISM)
Guide 6025

August 2010

EMS personnel are encouraged to familiarize themselves with the causes and contributing factors of critical incident and cumulative stress, and learn to recognize the normal stress reactions that can develop from providing emergency medical services. A Critical Incident Stress Management Program is available to EMS personnel. The program consists of mental health professionals, chaplains, and trained peer support personnel who develop stress reduction activities, provide training, conduct debriefings, and assist EMS personnel in locating available resources. The team will provide voluntary and confidential assistance to those wanting to discuss conflicts or feelings concerning their work or how their work affects their personal lives.

A critical incident is any response that causes EMS personnel to experience unusually strong emotional involvement. A formal or informal debriefing will be provided at the request of medical authorities, ambulance management or EMS personnel directly related to the incident.

Common incidents that cause critical stress include:

- ✓ Serious injury or death of a crew member in the line of duty
- ✓ Suicide of a crew member
- ✓ Injury or death of a friend or family member
- ✓ Death of a patient under tragic or emotional circumstances or prolonged or intense rescue
- ✓ Sudden death of infant or child
- ✓ Injuries to children caused by child abuse
- ✓ Injuries or death to civilians caused by EMS personnel
- ✓ An event that threatens your own life
- ✓ An event that attracts unusual amount of media attention
- ✓ A multiple-casulty incident, such as a plane crash, bus crash, or tornado

Critical Incident Stress Debriefings should be held within 24-72 hours of a critical incident. In the event that a Critical Incident Stress Debriefing is needed, have the proper person contact your local Emergency Manager to request the Critical Incident Stress Management Team.

South Dakota Medical Guidelines
Determination of Death, Dead on Arrival (DOA)
Guide 6030

August 2010

EMT

- ✓ Complete patient assessment
- ✓ Criteria for traumatic death determination
  - Decapitation
  - Incineration of torso and/or head
  - Massive crush injury and/or penetrating injury
  - Gross dismemberment of the torso
- ✓ Ensure the following are present:
  - Unresponsive
  - Apneic
  - Absence of carotid pulse
  - Rigor mortis (do not confuse in a cold environment)
  - Signs of lividity
  - Fixed and dilated pupils

South Dakota Medical Guidelines
South Dakota Codified Emergency Traffic Laws
Guide 6035

August 2010

Emergency Vehicles – Use of Lights and Sirens

EMS personnel in the United States have an estimated fatality rate of 12.7 per 100,000 workers, more than twice the national average. Vehicle crashes remain the leading cause of death in EMS. Less than half of EMS workers use restraints in the patient compartment. In addition, lap-belt restraint systems commonly provided in patient compartments do not allow full access to the patient. When properly used, the squad bench lap belts position the EMS worker against the side wall, making it impossible for the worker to bend forward to access the patient. If the EMS worker needs to access the cabinets along the driver-side wall, the belts must be unbuckled to allow the worker to stand up. If CPR or other procedures such as intubation or insertion of IVs must be performed, EMS personnel might need to stand over or kneel near the cot. For these reasons, EMS workers often ride unrestrained, seated on the edge of the squad bench. In addition, unrestrained or improperly restrained patients who become airborne in a crash might pose an additional injury risk to EMS personnel and to themselves.

The driver of an authorized emergency vehicle may disregard traffic regulations when responding to an emergency. The regulations that may be disregarded:

1) Parking on any paved or improved or main-traveled portion of any highway, outside of a business or residence district

2) Proceed past a red light or stop sign or signal, but only after slowing down as necessary for safe operation

3) Disregard regulations governing direction of movement or turning in specified directions

4) These regulations may only be utilized if the emergency vehicle is making use of audible and visual signals as required by law

5) This does not entitle the driver to drive without due regard for safety of all persons.

South Dakota Medical Guidelines
South Dakota Codified Emergency Traffic Laws
Guide 6035

August 2010

32-26-15. Yielding right-of-way to emergency vehicles--Duty of driver of emergency vehicle not to exercise right-of-way arbitrarily--Violation as misdemeanor. The driver of a vehicle upon a highway shall yield the right-of-way to police and fire department vehicles and ambulances if they are operated upon official business and the drivers give an audible signal by bell, siren, or exhaust whistle or visual signal by flashing, oscillating, or rotating beams of red light or combinations of red, blue, or white light visible one hundred eighty degrees to the front of the vehicle. The provisions of this section do not relieve the driver of a police, fire department vehicle, or ambulance from the duty to drive with due regard for the safety of all persons using the highway nor does it protect the driver of any such vehicle from the consequence of an arbitrary exercise of such right-of-way. A violation of this section is a Class 2 misdemeanor.

Source: SDC 1939, § 44.0319; SL 1945, ch 189; SL 1989, ch 255, § 152; SL 2007, ch 186, § 4.

32-31-1. Circumstances under which emergency vehicle may disregard traffic regulations. The driver of an authorized emergency vehicle, when responding to an emergency call or when in the pursuit of an actual or suspected violator of the law or when responding to but not upon returning from a fire alarm, may exercise the privileges set forth in § 32-31-2, but subject to the conditions stated in §§ 32-31-3 and 32-31-5.

Source: SDC 1939, § 44.0308 as added by SL 1967, ch 191.

32-31-2. Particular regulations which may be disregarded. The driver of an authorized emergency vehicle may:

(1) Park or stand, irrespective of the provisions of chapter 32-30;

(2) Proceed past a red or stop signal or stop sign, but only after slowing down as may be necessary for safe operation;

(3) Disregard regulations governing direction of movement or turning in specified directions.

Source: SDC 1939, § 44.0308 as added by SL 1967, ch 191.

32-31-3. Use of emergency signals required. The exemptions granted in subdivisions 32-31-2(2) and (3) to an authorized emergency vehicle apply only if the vehicle is making use of audible or visual signals meeting the requirements of law. However, the exemption granted in subdivision 32-31-2(1) to an authorized emergency vehicle applies only if the vehicle is making use of visual signals meeting the requirements of law.

Source: SDC 1939, § 44.0308 as added by SL 1967, ch 191; SL 1989, ch 256, § 35; SL 2007, ch 186, § 1.

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32-31-4. Speed limits inapplicable under specified conditions. The speed limit set out in §§ 32-25-1.1 to 32-25-17, inclusive, does not apply to any authorized emergency vehicle responding to an emergency call if the driver sounds an audible siren or air horn or both or displays flashing, oscillating, or rotating beams of red light or combinations of red, blue, or white light visible one hundred eighty degrees to the front of the vehicle. The lights shall be capable of warning the public of the presence of an emergency vehicle under normal atmospheric conditions. The speed limit set out in §§ 32-25-1.1 to 32-25-17, inclusive, does not apply to authorized emergency vehicles operated by law enforcement officers who are measuring the speed of other vehicles by use of the emergency vehicle speedometer. Moreover, the driver of an ambulance who has been certified pursuant to § 34-11-6 may operate the emergency vehicle in excess of the speed limit without audible signals while operating outside the city limits of a municipality.

Source: SDC 1939, § 44.0308; SL 1941, ch 187, § 3; SL 1955, ch 168; SL 1959, ch 251, § 1; SDC Supp 1960, § 44.0303; SL 1963, ch 254; SL 1975, ch 210, § 1; SL 1981, ch 248; SL 1988, ch 266; SL 1993, ch 234, § 2; SL 1994, ch 265; SL 2007, ch 186, § 2.

32-31-5. Duty of operator to use care--Liability for recklessness. The provisions of this chapter shall not relieve the driver of an authorized emergency vehicle from the duty to drive with due regard for the safety of all persons, nor shall such provisions protect the driver from the consequences of his reckless disregard for the safety of others.

Source: SDC 1939, § 44.0320 as added by SL 1959, ch 252, § 1; SL 1963, ch 254; SL 1967, ch 191.

32-31-6.1. Stop required upon approaching stopped emergency vehicle using red signals--Requirements for approaching vehicles using amber or yellow signals--Violation as misdemeanor. Upon approaching from any direction any stopped authorized emergency vehicle making use of red visual signals meeting the requirements of this title, the driver of every other vehicle shall come to a complete stop before reaching the stopped emergency vehicle and may, unless otherwise directed, proceed with caution only after ascertaining that it is safe to do so, and upon approaching from any direction any stopped vehicle making use of amber or yellow warning lights, the driver of every other vehicle shall:

(1) If driving on an interstate highway or other highway with two or more lanes traveling in the same direction as the vehicle, merge into the lane farthest from the vehicle and proceed with caution, unless otherwise directed; or

(2) If driving on a two lane highway, slow to a speed that is at least twenty miles per hour less than the posted speed limit or five miles per hour when the speed limit is posted at twenty miles per hour or less and proceed with caution, unless otherwise directed.

A violation of this section is a Class 2 misdemeanor.

Source: SL 1975, ch 210, § 2; SL 1989, ch 255, § 215; SL 2003, ch 173, § 1.

44:05:04:24. Report of property damage or personal injury. All ambulance licensees must report to the department any property damage in excess of $1,000 caused by or to a licensed ambulance vehicle and any personal injury to the public or ambulance personnel that requires medical attention. The report must be made to the department within five working days after the event which caused the loss or injury.